INPATIENT MEDICATIONS (IM)

TECHNICAL MANUAL/SECURITY GUIDE

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Preface

This technical manual is written for the IRM Chief/Site Manager and the ADP Coordinator for implementation and installation of the Inpatient Medications package. The main texts of the manual outlines routine descriptions, file list, site configuration issues, variables, resource requirements, and package security.

Table of Contents

Introduction

The Inpatient Medications computer software package is one segment of the Veterans Health Information Systems and Technology Architecture (**V***IST***A**) for the Department of Veterans Affairs. This package is a computerized system of tracking and assisting in the manufacture, dispensing, and administration of medications within a medical care facility by using information common to all **V***IST***A** packages such as patient information and Inpatient Medications orders entered by the users. The Inpatient Medications package consists of two modules: IV Medications and Unit Dose Medications.

The IV Medications module is one segment of **V***IST***A** being installed at all Department of Veterans Affairs Medical Centers (VAMCs). This module shares a common source of information, the patient data base, with other applications, such as the Outpatient Pharmacy and Laboratory packages. The basis for information in the Inpatient Medications IV module is the patient record in the computer.

The Unit Dose Medications module is a method of computerizing the inpatient drug distribution within the hospital. Unit dose orders are entered and edited by a ward clerk, provider, nurse, or pharmacist, and verified by a nurse and pharmacist. Orders can also be discontinued or renewed as appropriate. Once active, the orders are dispensed to the wards by means of the pick list. The system allows for dispensing tracking from the pick list.

The Unit Dose module can also produce 24-hour, 7-day, or 14-day Medication Administration Records (MARs), which are the computerized versions of the manual Continuing Medication Records (CMR). The MAR contains patient demographics, all requested types of active orders, and their administration schedules.

Functional Description

The Unit Dose module is designed to provide a flexible method for order entry and medication dispensing. Each VAMC should be able to adapt the system to fit its own needs. The Unit Dose module has the ability to perform the following functions:

- Tailor processes by facility, user, and/or medication.
- Allow for immediate entry of predefined sets of orders.
- Provide on-line order maintenance (e.g., edit, renewal, discontinuation).
- Generate labels containing order and patient information on demand and upon the entry/maintenance of an order.
- Provide on-line or printed patient profiles which include a history of medication orders for the current or last facility visit.

- Display patient and order information.
- Mark orders that need attention.
- Display histories of all actions taken on active orders.
- Provide computerized pick lists which include precalculated doses for pharmacists.
- Print various reports and forms for individual patients, individual wards, and pre-defined groups of wards.
- Provide an Action Profile of patient medication orders for use by physicians to cancel or continue medications.
- Provide medication administration records, alleviating the need for ward personnel to transcribe orders at the time of entry or renewal.
- Provide a Stop Order Notice report to notify users of orders near expiration.
- Discontinue medication orders for patients transferred between wards and/or services.
- Provide dispensing cost reports by patient, ward, service, drug, and provider.
- Provide a computerized order form when a provider enters orders.

The Inpatient Medications IV module is a dispensing package. It will provide the pharmacy users with

- IV labels
- Manufacturing worksheets
- Ward list for order update
- Management reports

The module will allow control of the manufacturing of IVs not achievable through manual procedures. The IV module will also allow your pharmacy to establish and maintain, through order entry and ward updating, an accurate and timely data set of your hospital's IV orders.

All reports in the IV module can be queued. As you enter the module for the first time, you will be asked to define an IV room. Part of the IV room definition includes entering a printer label device and a printer report device. (These devices are defined in the *SIte Parameters (IV)* [PSJI SITE PARAMETERS]option.) The device you enter is the one most frequently used for label and report printing, and will be the default answer for the "LABEL DEVICE:" and "REPORT DEVICE:" prompts when you sign into the module. At the device prompt(s), you can

1. accept the default answer you have defined,
2. enter another device number that you wish to print to, or
3. enter **0** to get output on your screen.

I. Implementation and Maintenance

A. Installation

For installation of the Inpatient Medications V. 5.0 software package, please refer to the Computerized Patient Record System (CPRS) Installation Guide.

B. Inpatient Parameters

The following is a list of the parameters that are used in defining the functions that affect the entire Inpatient Medications package for your site. Please consult the IV and Unit Dose User Manuals for greater detail on the use of these options.

Note: The INPATIENT SITE file (#59.4) is no longer used by the Inpatient Medications package.

To edit these parameters from the IV Medications module, use the following menu path:

IV Menu [PSJI MGR]
SUPervisor's Menu (IV) [PSJI SUPERVISOR] (Locked: PSJI MGR)
AUto-Discontinue Set-Up [PSJ AC SET-UP]
SIte Parameters (IV) [PSJI SITE PARAMETERS]

To edit these parameters from the Unit Dose Medications module, use the following menu path:

Unit Dose Medications [PSJU MGR]
Supervisor's Menu [PSJU FILE] (Locked: PSJU MGR)
PARameters Edit Menu [PSJ PARAM EDIT MENU]

1. Fields from the Pharmacy System file (#59.7)

SITE NAME.

This is the name of the site using the pharmacy packages. Because of the nature of this file and the fact that all the Pharmacy packages use this file, it is very important that only one site name ever be entered into this file. Sites must not edit fields or make local field additions to the PHARMACY SYSTEM file (#59.7).

FROM WARD.
This is the ward the patient has been transferred from whenever an action is to take place (e.g., placing orders on hold, discontinuing orders). For each FROM WARD, there are the following fields:

TO WARD.
Whenever a patient is transferred from the previously selected FROM WARD to a ward selected here as a TO WARD, the patient's IV and Unit Dose orders are discontinued.

'ON PASS' ACTION.
This is the action the Inpatient Medications package will take on a patient's orders whenever the patient is transferred from the selected FROM WARD to "Authorized Absence less than 96 hours" (known as On Pass). If PLACE ORDERS ON HOLD is chosen, the patient's orders will be taken off of hold whenever the patient returns.

ACTION ON AUTHORIZED ABSENCE.
This is the action that is to take place on a patient's Inpatient (Unit Dose and IV) Medications orders whenever the patient is transferred from the selected FROM WARD to AUTHORIZED ABSENCE. If PLACE ORDERS ON HOLD is selected, the orders will automatically be taken off of hold when the patient returns.

ACTION ON UNAUTHORIZED ABSENCE.
This is the action that is to take place on a patient's Inpatient (Unit Dose and IV) Medications orders whenever the patient is transferred from the selected FROM WARD to UNAUTHORIZED ABSENCE. If PLACE ORDERS ON HOLD is selected, the orders will automatically be taken off of hold when the patient returns.

FROM SERVICE.
This is the service the patient has been transferred from whenever the patient's Inpatient Medications (IV and Unit Dose) orders are to be discontinued. For each FROM SERVICE, there is the following field:

TO SERVICE.
Whenever a patient is transferred from the previously selected FROM SERVICE to a service selected here as a TO SERVICE, the patient's IV and Unit Dose orders are discontinued.

NON-FORMULARY MESSAGE.

This is a message that will be shown to non-pharmacists when they order drugs not currently stocked by the pharmacy. This is typically a warning, and describes a procedure the non-pharmacist must follow before the pharmacy will dispense the non-formulary drug.

PRINT 6 BLOCKS FOR THE PRN MAR.

This field is used to indicate if 4 or 6 blocks are to be used for ONE-TIME/PRN orders on the 7/14 DAY MAR ONE-TIME/PRN SHEET. The 7/14 DAY MAR ONE-TIME/PRN SHEET will print 4 blocks if this field is not set to yes.

PRINT DIET ABBR LABEL ON MAR.

If this field contains a 1 or Yes, the Dietetics Abbreviated Label will be printed on the MAR.

ATC SORT PARAMETER.

This parameter allows sending of the Pick List to the ATC machine by ATC mnemonic within patient.

ALLOW THE CHANGE OF ORDER TYPES ON ORDERS FROM CPRS

This parameter will allow the pharmacist to change the type of order once it is received from CPRS (e.g., IV to Unit Dose).

If the parameter is set to "yes" and the drug entry in the PHARMACY ORDERABLE ITEM file (#50.7) has data in the fields CORRESPONDING UD ITEM and CORRESPONDING IV ITEM, the pharmacist finishing the order will be given the opportunity to change the order type.

Note: Fields from the INPATIENT WARD PARAMETERS file are still edited through Inpatient Medications.

2. Fields from the INPATIENT WARD PARAMETERS file (#59.6)

WARD.

This is a ward for which the site wants to tailor specific aspects of the Inpatient Medications package.

DAYS UNTIL STOP DATE/TIME.

This is the number of days a standard order should last. The first order entered for a patient uses this number to calculate a default value for the order's STOP DATE/TIME. This number is also used if SAME STOP DATE has no entry, or an entry of **no**.

SAME STOP DATE ON ALL ORDERS.

This is a flag, that if found to be **yes**, uses the STOP DATE/TIME from the patient's first order as a default value for the STOP DATE/TIME on all of the patient's following orders.

DEFAULT START DATE CALCULATION.

This field allows the ward to tell the package how the default start date for orders should be calculated. The default may use the next admin time, the closest admin time, or the current time (now) as the default start date for Unit Dose and IV orders.

TIME OF DAY THAT ORDERS STOP.

This is a time of day that, if found, is used in calculating the default value for the STOP DATE/TIME of patients' orders.

START TIME FOR 24-HOUR MAR.

This is the start time for the 24-hour MAR. It is used whenever a user enters a start date without a time when running the 24-hour MAR. This time is in military time format with leading and trailing zeros (0001 means 1 minute after midnight).

DAYS NEW LABELS LAST.

The Unit Dose module runs a background job once a day that deletes all unprinted new labels older than the number of days specified here. If no days are specified for this field, any unprinted new labels for this site will be purged at the end of the day.

Note: A label can still be printed for an order even though its new label record has been purged.

LABEL FOR WARD STAFF. Select from one of the following:

- NO LABELS. Labels are not created when ward staff (nurses, clerks, physicians, etc.) take action on an order. Labels are always created for actions taken on orders after they are verified, unless NO LABELS is selected.
- FIRST LABEL ON ORDER ENTRY/EDIT. Labels are created whenever ward staff enter an order or edit a non-verified order, but not when the nurse verifies an order.
- FIRST LABEL ON NURSE VERIFICATION. Labels are not created for ward staff until a nurse has verified the order.
- LABEL ON ENTRY/EDIT AND VERIFICATION. Labels are created whenever the order is entered or edited and verified.

WARD LABEL PRINTER.

If a device name is entered here, labels created by ward staff due to actions taken on orders will print automatically to the device.

PHARMACY LABEL PRINTER.

If a device name is entered here, labels created by pharmacy staff due to actions taken on orders will print automatically to the device.

LABEL ON AUTO-DISCONTINUE.

This is used to determine if labels should be created when orders for a patient from this ward are auto-discontinued due to a patient movement. Patient movements include discharges and transfers. Labels are created for the ward on which the patient resided before the move took place.

LABEL FOR PHARMACY. Select from one of the following:

- **NO LABELS**. Labels will not be created when pharmacy staff (pharmacists and pharmacy technicians) take action on an order.
- **FIRST LABEL ON ORDER ENTRY/EDIT**. Labels will be created when ever pharmacy staff enter an order or edit a non-verified order, but not when the pharmacist verifies an order.
- **FIRST LABEL ON PHARMACIST VERIFICATION**. Labels will not be created for pharmacy staff until a pharmacist has verified the order.
- **LABEL ON ENTRY/EDIT AND VERIFICATION**. Labels are created whenever the order is entered or edited and verified.

MAR HEADER LABELS.

This is used to determine if MAR header labels should be generated when orders are processed for patients.

'SELF MED' IN ORDER ENTRY.

If the word **yes** (or a **1**) is entered here, the regular order entry process will prompt the user for SELF MED and HOSPITAL SUPPLIED SELF MED for each order entered. The abbreviated processes and ward order entry and order sets are not affected in any way by this site parameter.

MAR ORDER SELECTION DEFAULT.

This identifies the default for the type of orders to be included on MARs printed for this ward. All Medication, Non-IV medications only, IV piggybacks, admixtures, hyperals, and/or IV chemotherapy medication types may be selected. Multiple types may be specified.

PRINT PENDING ORDERS ON MAR.

This is used to determine if pending orders that were acknowledged by a nurse should be included on the MARs and the Medication Due Worksheet.

Note: Fields from the INPATIENT USER PARAMETERS file are still edited through Inpatient.

3. Fields from the INPATIENT USER PARAMETERS file (#53.45)

INPATIENT USER.

This is a user for whom the Inpatient Medications package can be tailored.

MAY SELECT DISPENSE DRUGS.

Unless the user is a pharmacist, the user can select only primary drugs during the Unit Dose order entry process. Answer **yes** here if this non-pharmacist user is permitted to select dispense drugs during order entry.

ALLOW USER TO RENEW ORDERS.

If this field is set to **yes**, this ward clerk/pharmacy technician can actually renew patients'inpatient orders. If this is set to **no** (or is not set), this clerk/technician can only mark orders for renewal by another user.

ALLOW USER TO HOLD ORDERS.

If this field is set to **yes**, this ward clerk/pharmacy technician can actually place patients'inpatient orders on hold or take orders off of hold. If this is set to **no** (or is not set), this clerk/technician can only mark orders for hold and unhold.

ALLOW USER TO D/C ORDERS.

If this field is set to **yes**, this ward clerk/pharmacy technician can actually discontinue patients'inpatient orders. If this is set to **no** (or is not set), this clerk/technician can only mark orders to be discontinued by another user.

PRINT PROFILE IN ORDER ENTRY.

If you answer **yes** here, you will be given the opportunity to print a patient profile after entering Unit Dose orders for the patient.

LABEL PRINTER.

This is a device to which labels created by this user will print. If a device name is entered here, it will be used instead of any device selected for the ward or pharmacy to print labels.

ALLOW AUTO-VERIFY FOR USER.

This is used to determine if the user can enter Unit Dose orders as active, allowing the user to skip the step of manually verifying those orders entered by this user.

USE WARD LABEL SETTINGS.

This allows the pharmacist (or pharmacy technician) working on the ward(s) to use the label settings defined for the ward(s) instead of the label settings defined for the pharmacy.

Note: If you have defined a Label Printer, that printer will always be used to print labels instead of either the ward or pharmacy label printer.

INPATIENT PROFILE ORDER SORT.

This is the sort order in which the inpatient profile will show inpatient orders. Enter the words Medication Name (or the number **0**) to show the orders alphabetically by drug name. Enter the words Start Date of Order (or the number **1**) to show the order chronologically by start date, with the most recent dates showing first.

Note: The profile first shows orders by status (active, non-verified, and then non-active), and within status, schedule type (continuous, one-time, and then PRN).

ORDER ENTRY PROCESS.

This is the type of order entry process to be used by this user.

Regular order entry is the full set of prompts for the entry of an order, after which the user is shown a full view of the order and allowed to take immediate action on the order.

Abbreviated order entry gives the user fewer prompts for the entry of an order, after which the user is shown a full view of the order and is allowed to take immediate action on the order.

Ward order entry gives the user the same prompts as the abbreviated order entry, but then gives a brief view of the entered order and does not allow immediate action to be taken on the order.

No entry here is the same as selecting **Regular** order entry.

Note: The fields from the IV ROOM file are still edited through Inpatient Medications.

4. Fields from the IV ROOM file (#59.5)

IV ROOM NAME.

This is the arbitrary name of an IV room. A site can have more than one name defined. Each IV order belongs to the IV room that input the order. An IV room can process only orders that belong to that IV room.

LENGTH OF LABEL.

The labels that you use can vary in height from 12 to 66 lines. Measure the height of your label and multiply that height by the number of lines per inch that your printer is configured for.

Note: If all lines of print cannot fit within the length that is defined here, they will continue to the next label. For example, the average piggyback label is three inches high. If you print 6 lines per inch, you should enter the number 18 as the answer to this parameter.

WIDTH OF LABEL.

Enter the maximum allowable width of your label in number of characters. If you do not enter data into this field, the default will be 30. If a line of print cannot fit within the width you define here, it will continue on the next line of the label.

LINE FEEDS BETWEEN LABELS.

Enter a number between 0 and 6. This is the number of line feeds between each IV label. This parameter makes it possible to have a top and bottom margin on your IV labels.

END OF LABEL TEXT.

Enter any end of label text that you want to print at the bottom of every IV label. Separate the lines with an up-arrow (^). For example, to have this phrase print at the bottom of your IV labels:

RETURN TO IV ROOM IN 24-HOURS
FILLED BY: ____ CHECKED BY: ____

you must enter the following characters:

RETURN TO IV ROOM IN 24-HOURS^FILLED BY: ____
CHECKED BY: ____ .

HEADER LABEL.

When set to **yes**, an extra label is generated to record lot numbers and provide a record for new orders entered since the last printing of the active order list. This extra label, together with the active order list, provides a paper backup system in the event the computer system becomes unavailable to the user.

SHOW BED LOCATION ON LABEL.

The patient's ward location is always printed on the IV label. However, if bed location information is available and you wish to have this additional information on the label, enter **yes** or the number 1 in this field.

USE SUSPENSE FUNCTIONS.

If you want the SUSPEND LABELS as a valid choice at the "ACTION:" prompt after order entry, respond with the number **1**. If you do not want any labels suspended after order entry, but rather have them printed, respond with the number **0**.

DOSE DUE LINE.

This parameter affects the printing of the dose due line on the IV label. If the number 0 is entered, the time the dose is due will not be printed on the IV label. The dose due line will be printed for IVPBs only if you select the number **1**, LVPs if you select the number **2**, and both IVPBs and LVPs if you choose the number **3**.

Note: LVPs include HYPERAL type orders.

LVPS GOOD FOR HOW MANY DAYS.

This number is used when the stop date of a new order is computed. For example, if large volume IVs are good for 14 days and a new order is input with a start date of today, the stop date is T+14.

HYPERAL GOOD FOR HOW MANY DAYS.

This number is used when the stop date of a new order is computed. For example, if a hyperal order is good for 14 days and a new order is entered today, the default stop date is 14 days from now.

PBS GOOD FOR HOW MANY DAYS.

This number is used when the stop date of a new order is computed. For example, if a piggyback order is good for 14 days and a new order is entered today, the default stop date will be 14 days from now.

SYRNS GOOD FOR HOW MANY DAYS.
This field is used to determine the stop date for the IV syringe order.

CHEMO'S GOOD FOR HOW MANY DAYS.
This field is used to determine the stop date for chemotherapy IV orders.

STOP TIME FOR ORDER.
Enter, in military time, the time of the day that the automatic stop of orders should occur.

EXPIRE ALL ORDERS ON SAME DAY.
Enter the number 1 to stop all IV orders automatically on the same day. The day the orders are stopped will be the stop date of the first active IV order found in the file. The stop date that is found will be shown as a default for the stop date of the IV ORDER.

ACTIVITY RULER.
The activity ruler provides a visual representation of the relationship between coverage times, doses due, and order start times. The intent is to provide the on-the-floor user with a way to track activity in the IV room and determine when to call for doses before the normal delivery.

TOTAL VOL. ON HYPERAL LABELS.
Enter the number 1 or the word **yes** if you wish to have the total volume of solutions and additives displayed on all hyperal labels.

Select START OF COVERAGE.
Enter the military time that designates the first administration time covered by this manufacturing run. In other words, if the previous manufacturing period covered up to and included the 0900 dose, the start of coverage would begin at 0901. For each START OF COVERAGE, there are the following fields:

TYPE.
Enter the IV type for this start of coverage period. You can enter only one type for each period that you define.

DESCRIPTION.
You can enter a description for each delivery time (3 to 30 characters). You will be prompted with a default description. This description will appear when you request manufacturing records and ward lists. Using the default prompt will help lead to less confusion for your users.

END OF COVERAGE.

Enter the military time that designates the last administration time covered by this manufacturing run. Enter midnight as 2400.

MANUFACTURING TIME.

Enter the military time that designates the general time when the manufacturing list will be run and the orders prepared. This is for documentation and does not affect IV processing. Enter midnight as 2400.

DELIVERY TIMES.

Delivery times must be entered using a 24-hour clock (e.g., 9 AM is entered as 0900). Delivery times are used as default start times for admixtures and hyperalimentations. Enter midnight as 2400.

LABEL DEVICE.

Enter the name that is used most frequently as the label device for this IV room. This field displays as the default for the "Current IV LABEL device is:" prompt when signing into the IV software.

REPORT DEVICE.

Enter the PROFILE device number or name that will be used most frequently by this IV room. This field displays as the default for the "Current IV REPORT DEVICE :" prompt when signing into the IV software.

INACTIVATION DATE.

This is used to place an IV room out of service. Once the inactive date is reached the IV room will no longer be selectable in IV Order Entry options.

DAYS TO RETAIN IV STATS.

This is used to allow the site to specify the number of days to keep data in the IV STATS file (#50.8).

II. Package Security

A. Option Security Keys

After the users are assigned the primary menu options of PSJU MGR (for UD) and/or PSJI MGR (for IV), it is necessary to give the appropriate security keys to each user as required.

Note: The security key PSJU RPH is no longer used.

- **PSJI MGR** – Locks the PSJI MGR option. This key allows access to the supervisor functions necessary to run the IV Medications package, and should be given to the Inpatient coordinator.
- **PSJI PURGE** – This key gives access to the purge IV functions which allows the purging of expired orders. This key should be given to the Inpatient coordinator.
- **PSJU MGR** – This key allows the editing of basic background files needed to run the Unit Dose package, and various management reports. This key should be given to the Unit Dose package coordinator and/or Inpatient supervisor.
- **PSJU PL** – This key allows the user to have access to the Unit Dose Medications PICK LIST options and functions.

The following security keys do not lock any options, however they are used to identify the type of user:

- **PSJ RPHARM** – Designates the user as a pharmacist and gives them access to verify orders.
- **PSJ RNURSE** – Designates the user as a nurse and gives them access to verify orders.
- **PSJ PHARM TECH** – Designates the user as a Pharmacy Technician.

B. File Security

VA FileMan file access codes are used sparingly by the Inpatient Medications package. Only the following codes are given

- Every file sent with the package is given a DD access code of "@".
- IV STATS (#50.8), ACTIVITY LOG REASON (#53.3), PICK LIST (#53.5), UNIT DOSE PICK LIST STATS (#57.6), INPATIENT WARD PARAMETERS (#59.6), files are all given WR, LAYGO, and DEL access codes of "^".
- No code is given for the RD access of any of the files. Anyone may print the data from any of the files.

No other access codes are given. Sites may add their own codes as they see fit, but it is highly recommended that they *do not* change the codes that are sent with the package.

Note: Please refer to page 432 of Kernel V. 8.0 Systems Manual concerning installation of security codes section entitled "Sending Security Codes".

III. Routines

**** IMPORTANT ****

A routine name followed by an asterisk (such as PSG*) is used to designate the complete set of the routines that start with those characters.

A. Descriptions

The following routines are exported by the Inpatient Medications package. Routine names starting with the letters PSG designate routines used mainly by the Unit Dose Medications module. Routine names starting with the letters PSIV designate routines used mainly by the IV Medications module. Routine names starting with the letters PSJ designate Inpatient Medications routines– utilities used by IV, Unit Dose, and other packages.

PSGAL5	PSGAMS	PSGAMS0
PSGAMSA	PSGAP	PSGAP0
PSGAPH	PSGAPIV	PSGAPP
PSGAXR	PSGBRJ	PSGCAP
PSGCAP0	PSGCAPIV	PSGCAPP
PSGCAPP0	PSGCT	PSGDCC
PSGDCCM	PSGDCR0	PSGDCT
PSGDCT1	PSGDCTP	PSGDL
PSGDS	PSGDS0	PSGDSP
PSGDSP0	PSGDSP1	PSGDSPN
PSGEUD	PSGEUDD	PSGEUDP
PSGFILD0	PSGFILD1	PSGFILD2
PSGFILD3	PSGFILED	PSGGAO
PSGIU	PSGL	PSGL0
PSGLBA	PSGLH	PSGLOI
PSGLPI	PSGLW	PSGMAR
PSGMAR0	PSGMAR1	PSGMAR2
PSGMAR3	PSGMI	PSGMIV
PSGMMAR	PSGMMAR0	PSGMMAR1
PSGMMAR2	PSGMMAR3	PSGMMAR4
PSGMMAR5	PSGMMARH	PSGMMIV
PSGMMIVC	PSGMMPST	PSGMUTL
PSGNE3	PSGO	PSGOD
PSGOE	PSGOE0	PSGOE1
PSGOE2	PSGOE3	PSGOE31
PSGOE4	PSGOE41	PSGOE42
PSGOE5	PSGOE6	PSGOE7
PSGOE8	PSGOE81	PSGOE82
PSGOE9	PSGOE91	PSGOE92

PSGOEC	PSGOECA	PSGOECS
PSGOEE	PSGOEE0	PSGOEEW
PSGOEF	PSGOEF1	PSGOEH0
PSGOEH1	PSGOEHA	PSGOEI
PSGOEL	PSGOEM	PSGOEM1
PSGOENG	PSGOEPO	PSGOER
PSGOER0	PSGOER1	PSGOERI
PSGOERS	PSGOES	PSGOESF
PSGOETO	PSGOETO1	PSGOEV
PSGOEVS	PSGON	PSGORS0
PSGORVW	PSGOT	PSGOU
PSGP	PSGPEN	PSGPER
PSGPER0	PSGPL	PSGPL0
PSGPL1	PSGPLD	PSGPLDP
PSGPLDP0	PSGPLDPH	PSGPLF
PSGPLFM	PSGPLG	PSGPLPRG
PSGPLR	PSGPLR0	PSGPLRP
PSGPLUP	PSGPLUP0	PSGPLUTL
PSGPLXR	PSGPO	PSGPOR
PSGPR	PSGPRVR	PSGPRVR0
PSGRET	PSGRPNT	PSGS0
PSGSCT	PSGSCT0	PSGSEL
PSGSET	PSGSETU	PSGSH
PSGSICHK	PSGSSP	PSGTAP
PSGTAP0	PSGTAP1	PSGTCTD
PSGTCTD0	PSGTI	PSGVBW
PSGVBW0	PSGVBW1	PSGVBWP
PSGVBWU	PSGVDS	PSGVW
PSGVW0	PSGVWP	PSIV
PSIVACT	PSIVAL	PSIVALN
PSIVAMIS	PSIVAOR	PSIVAOR1
PSIVCAL	PSIVCHK	PSIVCHK1
PSIVCSED	PSIVDCR	PSIVDCR1
PSIVDCR2	PSIVDRG	PSIVEDRG
PSIVEDT	PSIVEDT1	PSIVHIS
PSIVHLD	PSIVHLP	PSIVHLP1
PSIVHLP2	PSIVHLP3	PSIVHYP
PSIVHYPL	PSIVLABL	PSIVLBDL
PSIVLBL1	PSIVLTR	PSIVLTR1
PSIVMAN	PSIVMAN1	PSIVOE
PSIVOPT	PSIVOPT1	PSIVOPT2
PSIVORA	PSIVORA1	PSIVORAL
PSIVORC	PSIVORC1	PSIVORC2
PSIVORE	PSIVORE1	PSIVORE2
PSIVOREN	PSIVORFA	PSIVORFB
PSIVORFE	PSIVORH	PSIVORLB
PSIVORV1	PSIVORV2	PSIVPAT
PSIVPCR	PSIVPCR1	PSIVPGE
PSIVPR	PSIVPRO	PSIVQUI
PSIVRD	PSIVREC	PSIVRNL
PSIVRP	PSIVRP1	PSIVRQ
PSIVRQ1	PSIVSET	PSIVSP
PSIVSPDC	PSIVST2	PSIVSTAT
PSIVSUS	PSIVSUS1	PSIVUDL
PSIVUTL	PSIVUTL1	PSIVUWL
PSIVVW1	PSIVWCR	PSIVWCR1
PSIVWL	PSIVWL1	PSIVWRP

PSIVXREF	PSIVXU	PSJ200
PSJAC	PSJADT	PSJADT0
PSJADT1	PSJALG	PSJDCHK
PSJDDUT	PSJDDUT2	PSJDDUT3
PSJDEA	PSJEEU	PSJEEU0
PSJEXP	PSJEXP0	PSJFL
PSJFL1	PSJH1	PSJHEAD
PSJHIS	PSJHL2	PSJHL3
PSJHL4	PSJHL5	PSJHL6
PSJHL7	PSJHL9	PSJHLERR
PSJHLU	PSJHVARS	PSJIENV
PSJIPRE	PSJIPST	PSJIPST1
PSJIPST2	PSJIPST3	PSJIPSTA
PSJLIACT	PSJLIFN	PSJLIFNI
PSJLIORD	PSJLIPRF	PSJLIUTL
PSJLIVFD	PSJLIVMD	PSJLMAL
PSJLMDA	PSJLMGUD	PSJLMHED
PSJLMPRI	PSJLMPRU	PSJLMUDE
PSJLMUT1	PSJLMUTL	PSJLOI
PSJMDIR	PSJMDIR1	PSJMDWS
PSJMEDS	PSJMIV	PSJMP
PSJMPEND	PSJMPRT	PSJMPRTU
PSJMUTL	PSJNTEG	PSJNTEG0
PSJNTEG1	PSJO	PSJO1
PSJO2	PSJO3	PSJOE
PSJOE0	PSJOE1	PSJOEEW
PSJORDA	PSJORDF	PSJOREN
PSJORMAR	PSJORMAR1	PSJORMAR2
PSJORRE	PSJORRE1	PSJORUT2
PSJORUTL	PSJP	PSJPDIR
PSJPDV	PSJPDV0	PSJPDV1
PSJPL0	PSJPR	PSJPR0
PSJQPR	PSJRXI	PSJSPU
PSJSPU0	PSJSV	PSJSV0
PSJUNITD	PSJUTL	PSJUTL1
PSJUTL5		

The following routines are not used in this version of Inpatient Medications. They are exported in the KIDS build as Delete at Site.

PSGDCR
PSGDCT0
PSGEXP
PSGEXP0
PSGMMPST
PSGOROE0
PSGORU
PSGQOS
PSIVNVO
PSIVOEDO
PSIVOENT
PSIVOEPT
PSIVRD0
PSIVRD0
PSJMAN
PSJOAC
PSJOAC0
PSJOE8
PSJOE81
PSJOEE
PSJOER
PSJOER0
PSJORA
PSJORIN
PSJPRE4
PSJPRE40
PSJPRE41
PSJPRE45
PSJPRE46
PSJPRE47
PSJPRE48
PSJPRE49
PSJPRE4H
PSJQSET
PSJSPAUT
PSJUO
PSJUO1
PSJUTL2
PSJUTL3
PSJUTL4

B. Callable Routines

Entry points provided by the Inpatient Medications package to other packages can be found in the External Relationships section of this manual. No other routines are designated as callable from outside of this package.

C. Routine Mapping

Routines not listed here are used sparingly, and can be mapped if the site desires.

1. Do Not Map

PSGXR*
PSJIP*
PSJXR*

The PSGXR* and PSJXR* routines are created by VA FileMan when it compiles the cross-references of the NON-VERIFIED ORDERS (#53.1) and PHARMACY PATIENT (#55) files.

2. Mapping Highly Recommended

PSGAL5	PSGAMSA	PSGAP*
PSGAXR	PSGCAP*	PSGCT
PSGDL	PSGDS*	PSGEUD
PSGGAO	PSGIU	PSGL*
PSGMAR*	PSGMMAR*	PSGNE3
PSGO*	PSGP	PSGPEN
PSGPL*	PSGPR	PSGRET
PSGS0	PSGSEL	PSGSET*
PSGSICHK	PSGTAP*	PSGTI
PSGVBW*	PSGVDS	PSGVW*
PSIV	PSIVACT	PSIVAL
PSIVCAL	PSIVCHK*	PSIVHYP*
PSIVLABL	PSIVLBL1	PSIVLTR*
PSIVMAN*	PSIVOPT	PSIVORE*
PSIVPRO	PSIVSTAT	PSIVSUS*
PSIVUWL	PSIVVW*	PSIVWL*
PSIVXU	PSJA*	PSJEEU*
PSJHL*	PSJL*	PSJO*
PSJP		

3. Mapping Recommended

PSGAMS	PSGAMS0
PSGBRJ	PSGDC*
PSGFILD*	PSGFILED
PSGSC*	PSGSH
PSGTC*	PSIVDCR*
PSIVHLD	PSIVOE*
PSIVQUI	PSIVRQ*
PSIVSP	

D. Deleting Inpatient Routines

1. Since this version is distributed using KIDS (Kernel Installation and Distribution System) the transport global is automatically deleted after the install.

If you plan to delete existing Inpatient Medications routines before loading V. 5.0, be sure not to delete PSGW* (Ward Stock) routines. These routines are not included as part of Inpatient Medications.

2. The following Inpatient Medications routines were sent with a past version of the Kernel, and are no longer needed. They can be deleted

PSGZ1TSK PSGZ2TSK PSIVZTSK

Note: It is okay if any of these routines are missing, because they are no longer used.

IV. File List

50.2 IV CATEGORY
50.8 IV STATS
51.15 ADMINISTRATION SHIFT
53.1 NON-VERIFIED ORDERS
53.2 UNIT DOSE ORDER SET
53.3 ACTIVITY LOG REASON
53.4 PRE-EXCHANGE NEEDS
53.41 MAR LABELS
53.42 INPATIENT BACKGROUND JOB
53.43 MISCELLANEOUS REPORT FILE
53.44 PHYSICIANS' ORDERS
53.45 INPATIENT USER PARAMETERS
53.5 PICK LIST
53.55 UNIT DOSE/ATC MEDS
57.5 WARD GROUP
57.6 UNIT DOSE PICK LIST STATS
57.7 MEDICATION ADMINISTERING TEAM
59.5 IV ROOM
59.6 INPATIENT WARD PARAMETERS

Example: How to Print File Information Using VA FileMan

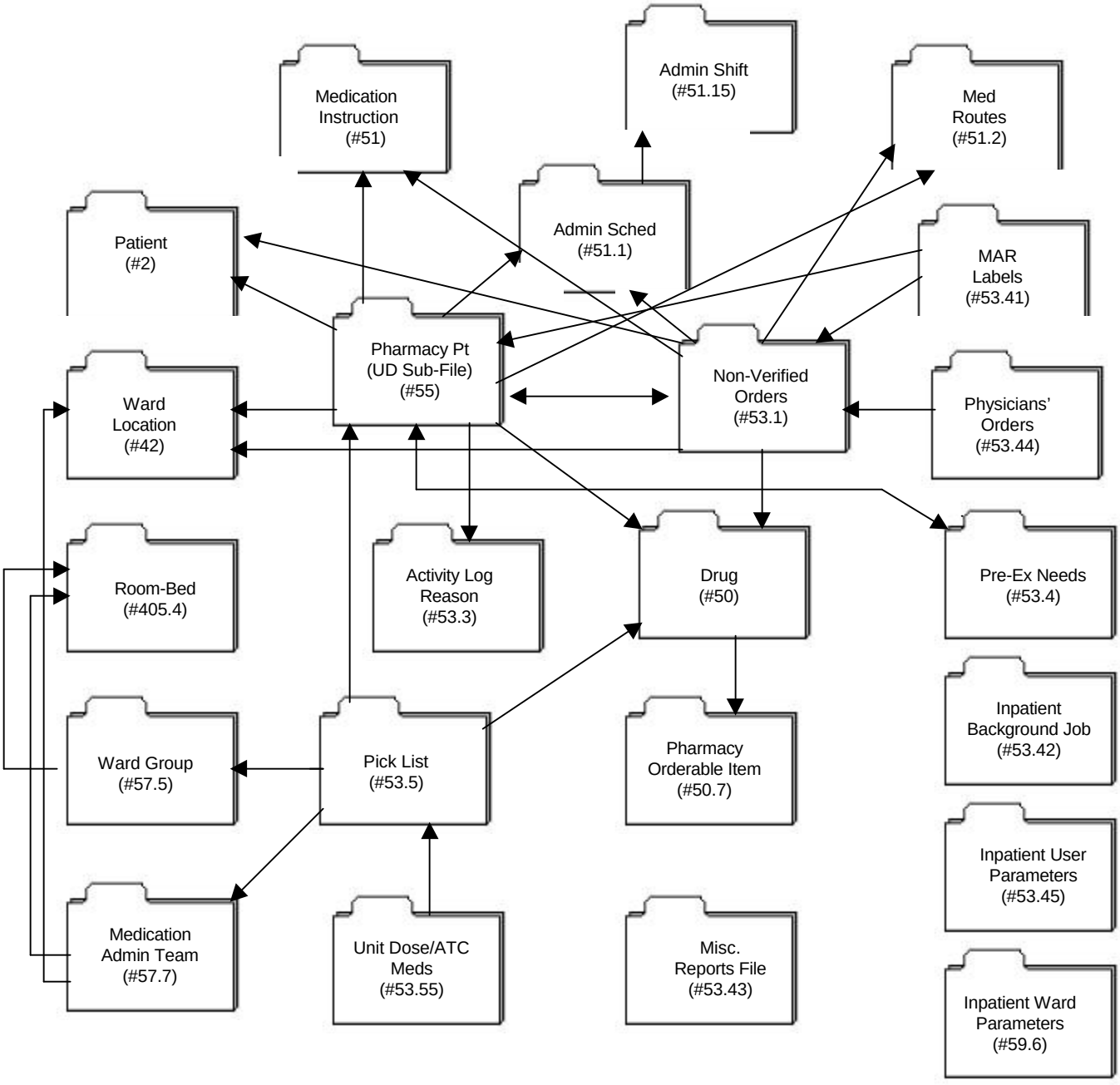
```
VA FileMan  21.0

Select OPTION:  8     DATA DICTIONARY UTILITIES
Select DATA DICTIONARY UTILITY OPTION:  LIST FILE ATTRIBUTES
START WITH WHAT FILE: INPATIENT USER PARAMETERS// <RET>
     GO TO WHAT FILE: INPATIENT USER PARAMETERS // <RET>
Select SUB-FILE:   <RET>
Select LISTING FORMAT:  STANDARD//  <RET>
DEVICE:  [Enter Print Device Here]                    RIGHT MARGIN: 80// <RET>


The file's Data Dictionary will now print on the user specified device.
```

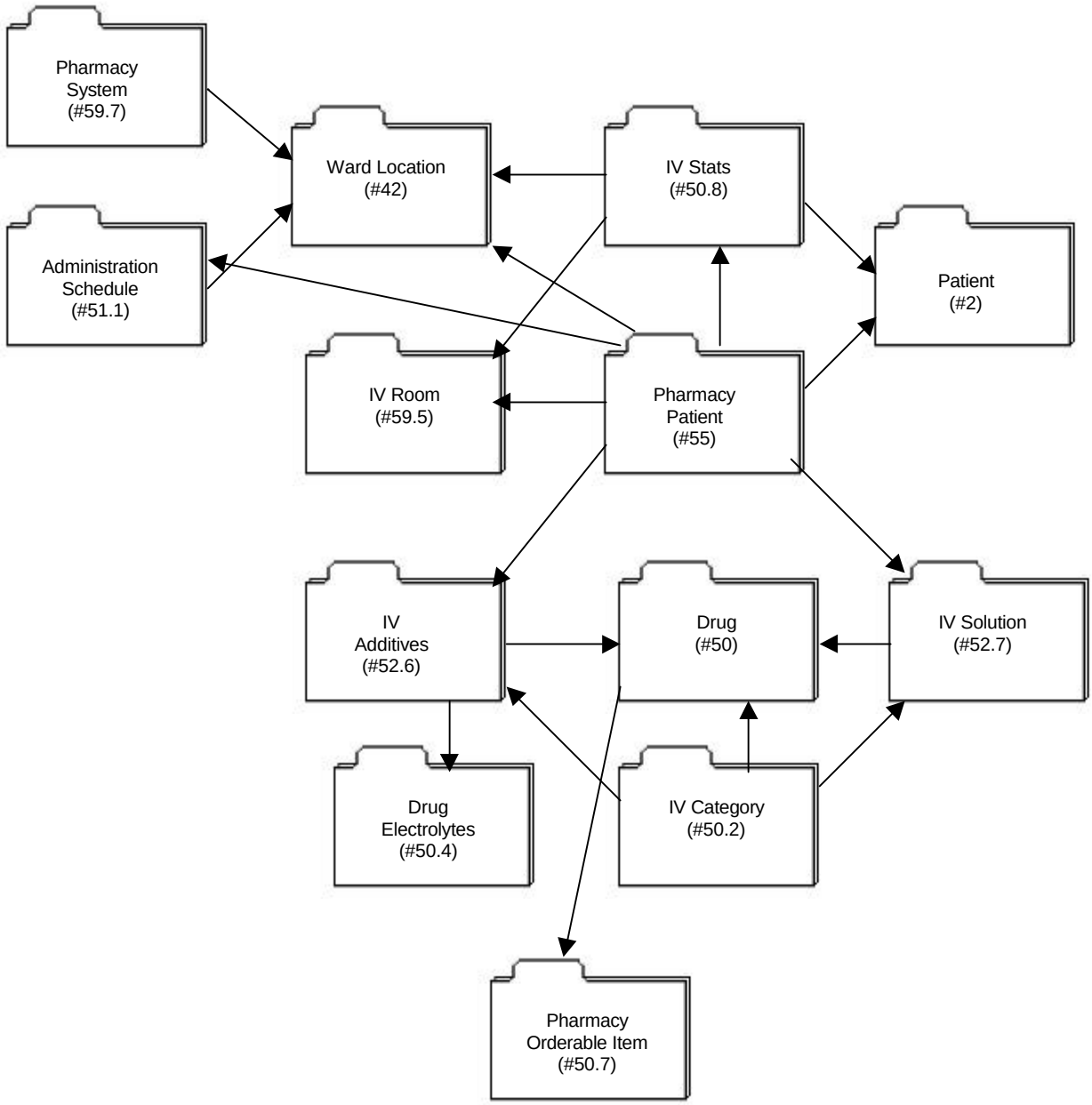
A. Unit Dose File Diagram

In Microsoft's latest version of Word, you will not be able to see the File Diagram below if you are viewing this document electronically, unless you are in Page Layout view. To switch to Page Layout, select View from the Word menu above and then select Page Layout. The entire manual can be viewed in this format.



B. IV File Diagram

In Microsoft's latest version of Word, you will not be able to see the File Diagram below if you are viewing this document electronically unless you are in Page Layout view. To switch to Page Layout, select View from the Word menu above and then select Page Layout. The entire manual can be viewed in this format.



V. Templates

A. Print Templates

PSJ DOSAGE FORM REPORT File #50.606

B. Input Templates

PSGE AMS3 AMIS 157 File #2100
PSGE AMS3 AMIS 158 File #2100
PSJ ECSP File #59.7
PSJ FILED File #50
PSJ IUP SUPER EDIT File #53.45
PSJ IUP USER EDIT File #53.45
PSJ IWP EDIT File #59.6
PSJ OAOPT File #59.7
PSJ SHIFT EDIT File #51.15
PSJI SCHEDULE EDIT File #51.1
PSJI SITE PARAMETERS File #59.5
PSJIDE File #50.4
PSJIEDT File #53.1
PSJU DRUG EDIT File #50
PSJU FILED File #50
PSJU WG File #57.5
PSJUED File #53.1
PSJUMATE File #57.7
PSJUOSE File #53.2

The following input templates are no longer used and are exported as Delete at Site.

PSJ EXT SCHEDULE EDIT File #51.1
PSJ PD EDIT File #50.3
PSJ SCHEDULE EDIT File #51.1
PSJ FILED File #50
PSJI ADD File #52.6
PSJI SOL File #52.7
PSJQ FLUID File #57.1
PSJQ MED File #57.1
PSJUED FILE #53.71
PSJUPDE File #55

C. List Templates

PSJ LM ALLERGY DETAIL
PSJ LM ALLERGY DISPLAY
PSJ LM BRIEF PATIENT INFO
PSJ LM DETAILED ALLERGY
PSJ LM IV AC/EDIT
PSJ LM IV DISPLAY
PSJ LM IV INPT ACTIVE
PSJ LM IV INPT DISPLAY
PSJ LM IV INPT PENDING
PSJ LM IV OE
PSJ LM IV PENDING
PSJ LM IV PROFILE
PSJ LM OE
PSJ LM OE DISPLAY
PSJ LM PENDING EDIT
PSJ LM PNV
PSJ LM UD ACTION
PSJU LM ACCEPT
PSJU LM OE

Example: How to Print List Templates using VA FileMan

```
D P^DI

VA FileMan 21.0


Select OPTION: INQUIRE TO FILE ENTRIES

OUTPUT FROM WHAT FILE: OPTION// LIST TEMPLATE      (62 entries)
Select LIST TEMPLATE NAME: PSJ LM ALLERGY DETAIL
ANOTHER ONE: <RET>
STANDARD CAPTIONED OUTPUT? Yes//  <RET> (Yes)
Include COMPUTED fields:  (N/Y/R/B): NO//<RET> - No record number (IEN), no
Computed Fields

NAME: PSJ LM ALLERGY DETAIL            TYPE OF LIST: PROTOCOL
  RIGHT MARGIN: 80                     TOP MARGIN: 8
  BOTTOM MARGIN: 20                    OK TO TRANSPORT?: OK
  USE CURSOR CONTROL: YES
  PROTOCOL MENU: PSJ LM DETAILED ALLERGY MENU
  SCREEN TITLE: DETAILED ALLERGY VIEW   ALLOWABLE NUMBER OF ACTIONS: 2
  AUTOMATIC DEFAULTS: YES              HIDDEN ACTION MENU:  VALM HIDDEN
ACTIONS
  ARRAY NAME:  ^TMP("PSJAL",$J)
  EXIT CODE: D DISALL^PSJLMUTL(DFN) S VALMBCK="Q" K ^TMP("PSJALLRG",$J)
  HEADER CODE: D HDR^PSJLMHED(DFN)      HELP CODE: D HELP^PSJALG
  ENTRY CODE: D DETAIL^PSJALG
```

VI. Exported Options

A. Stand-alone Options

All of the Inpatient Medications package options are now designed to stand-alone and can be accessed without first accessing the top level menu. All of the options can be placed on menus other than their original menu without any additional editing.

B. Top-level Menus

There is no top-level menu for Inpatient Medications. The Inpatient Medications options are included in the IV and Unit Dose top-level menus.

1. Menu Assignment

Assign the following menus to your Inpatient Medications users:

PSJU MGR This is the only Unit Dose Medications menu, and is to be assigned to all Unit Dose users.

PSJI MGR This IV Medications menu is to be assigned to your pharmacists, inpatient supervisors, and package coordinators.

PSJI USR1 This IV Medications menu is to be assigned to your nurses.

PSJI USR2 This IV Medications menu is to be assigned to your pharmacy technicians.

2. Menu Placement

It is strongly recommend that you *do not* place the Inpatient Medication (IV and Unit Dose) menus under the Outpatient Pharmacy menu. It is suggested that they be placed on the same menu as the Outpatient Pharmacy menu instead.

Although it has been common practice to place the Inpatient Medications top-level menus under the Outpatient menu, this can cause <STORE> errors.

C. Options

The following options are exported with the Inpatient Medications package:

PSJ AC SET-UP	AUto-Discontinue Set-Up
PSJ EXP	INpatient Stop Order Notices
PSJ EXTP	Patient Profile (Extended)
PSJ IWP EDIT	Inpatient Ward Parameters Edit
PSJ MDWS	Medications Due Worksheet
PSJ OAOPT	Order Action on Patient Transfer
PSJ OE	Inpatient Order Entry
PSJ PARAM EDIT MENU	PARameters Edit Menu
PSJ PDV	Patients on Specific Drug(s)
PSJ PR	Inpatient Profile
PSJ SEUP	Inpatient User Parameters Edit
PSJ SYS EDIT	Systems Parameters Edit
PSJ UD ALIGN LABEL	Align Unit Dose Labels
PSJ UEUP	Edit Inpatient User Parameters
PSJI 200	Correct Changed Names in IV Orders
PSJI ACTIVE	Active Order List (IV)
PSJI ALIGNMENT	Align Labels (IV)
PSJI AMIS	AMIS (IV)
PSJI AOR	ACtive Order Report by Ward/Drug (IV)
PSJI BACKGROUND JOB	Compile IV Costs in Background

PSJI CHANGE	Change to Another IV Room (IV)
PSJI COMPILE STATS	COmpile IV Statistics (IV)
PSJI COMPLETE	COmplete Orders (IV)
PSJI DELETE ORDER	Delete Orders (IV)
PSJI DEVICE	Change Report/Label Devices (IV)
PSJI DRUG COST REPORT	Drug Cost Report (132 COLUMNS) (IV)
PSJI DRUG FORM	IV Drug Formulary Report (IV)
PSJI DRUG INQUIRY	Drug Inquiry (IV)
PSJI INDIVIDUAL SUSPENSE	Individual Order Suspension (IV)
PSJI LBLI	Individual Labels (IV)
PSJI LBLMENU	Label Menu (IV)
PSJI LBLR	Reprint Scheduled Labels (IV)
PSJI LBLS	Scheduled Labels (IV)
PSJI MAN	Manufacturing List (IV)
PSJI MANAGEMENT REPORTS	Management Reports (IV)
PSJI MGR	IV Menu
PSJI ORDER	Order Entry (IV)
PSJI PATIENT COST	Patient Cost Report (132 COLUMNS) (IV)
PSJI PROFILE	Profile (IV)
PSJI PROFILE REPORT	Patient Profile Report (IV)
PSJI PROVIDER REPORT	PRovider Drug Cost Report (132 COLUMNS) (IV)
PSJI PURGE	PUrge Data (IV)

PSJI PURGE ORDERS	Purge Expired Orders (IV)
PSJI RECOMPILE	Recompile Stats File (IV)
PSJI REPORTS	REPorts (IV)
PSJI RETURNS	RETurns and Destroyed Entry (IV)
PSJI RNL	Renewal List (IV)
PSJI SITE PARAMETERS	SIte Parameters (IV)
PSJI SUPERVISOR	SUPervisor's Menu (IV)
PSJI SUSLBDEL	Delete Labels from Suspense (IV)
PSJI SUSLBLS	Labels from Suspense (IV)
PSJI SUSLIST	Suspense List (IV)
PSJI SUSMAN	Manufacturing Record for Suspense (IV)
PSJI SUSMENU	SUSpense Functions (IV)
PSJI SUSREP	Reprint Labels from Suspense (IV)
PSJI UP	Update Daily Ward List (IV)
PSJI USR1	IV Menu
PSJI USR2	IV Menu
PSJI WARD	Ward List (IV)
PSJI WARD/DRUG USAGE REPORT	Ward/Drug Usage Report (132 COLUMNS) (IV)
PSJU 14D MAR	14 Day MAR
PSJU 24H MAR	24 Hour MAR
PSJU 7D MAR	7 Day MAR
PSJU AL	Align Labels (Unit Dose)

PSJU AMIS	AMIS (Cost per Ward)
PSJU AP-1	Action Profile #1
PSJU AP-2	Action Profile #2
PSJU AT	Administering Teams
PSJU BRJ	Unit Dose Clean-Up
PSJU CA	Discontinue All of a Patient's Orders
PSJU CPDD	Edit Patient's Default Stop Date
PSJU DCT	Drug (Cost and/or Amount)
PSJU DS	AUthorized Absence/Discharge Summary
PSJU EPPD	Pharmacy Patient Data Edit
PSJU EUD	EXtra Units Dispensed
PSJU EUDD	Extra Units Dispensed Report
PSJU EWG	Ward Groups
PSJU FILE	Supervisor's Menu
PSJU HOLD ALL	Hold All of a Patient's Orders
PSJU INQ DRUG	Dispense Drug Look-Up
PSJU INQ STD SCHD	Standard Schedules
PSJU INQMGR	INQuiries Menu
PSJU LABEL	Label Print/Reprint
PSJU MAR	Medication Administration Record
PSJU MGR	Unit Dose Medications
PSJU MNGMT REPORTS	MANagement Reports Menu

PSJU NE	Order Entry
PSJU OSE	Order Set Enter/Edit
PSJU PL	Pick List
PSJU PL MENU	PIck List Menu
PSJU PLAPS	PIck List Auto Purge Set/Reset
PSJU PLATCS	Send Pick List to ATC
PSJU PLDEL	Delete a Pick List
PSJU PLDP	ENter Units Dispensed
PSJU PLMGR	PIck List Menu
PSJU PLPRG	PUrge Pick Lists
PSJU PLRP	Reprint Pick List
PSJU PLUP	Update Pick List
PSJU PO PURGE	PATient Order Purge
PSJU PR	PAtient Profile (Unit Dose)
PSJU PRVR	PRovider (Cost per)
PSJU REPORTS	Reports Menu
PSJU RET	Report Returns
PSJU SCT	Service (Total Cost per)
PSJU SYSTEM	Unit Dose System
PSJU TCTD	Total Cost to Date (Current Patients)
PSJU VBW	Non-Verified/Pending Orders

The following options are no longer in this version of Inpatient Medications. They are exported in the KIDS build as Delete at Site.

PSJ AUTO CREATE THROUGH NDF	Auto create by VA Generic Name
PSJ CREATE	Create/Update Orders in OE/RR
PSJ MANUAL MATCH	Manual match Dispense Drugs
PSJ QUICK ORDER REPORT	Quick Order Report
PSJ QUICK ORDERS	Quick Order Add/Edit
PSJ QUICK ORDERS MENU	Quick Orders Menu
PSJI NON-VERIFIED ORDERS	Non-verified Orders (IV)
PSJI NON VERIFIED ORDERS	Nonverified Orders (IV)
PSJU AP	Action Profile (Unit Dose)
PSJU EXP	Stop Order Notices
PSJU DCC	Edit Cost Data
PSJU DCR	Cost at Discharge
PSJU DRUG/ATC SET UP	Dispense Drug/ATC Set Up
PSJU PLSP	Site Parmeters

Example: How to Print the Exported Options Using VA FileMan

```
D P^DI

VA FileMan 21.0

Select OPTION: INQUIRE TO FILE ENTRIES


OUTPUT FROM WHAT FILE: PRINT TEMPLATE// OPTION
     1   OPTION                          (2109 entries)
     2   OPTION SCHEDULING               (9 entries)
CHOOSE 1-2: 1
Select OPTION NAME: PSJ AC SET-UP          AUto-Discontinue Set-Up
ANOTHER ONE: <RET>
STANDARD CAPTIONED OUTPUT? Yes//  <RET> (Yes)
Include COMPUTED fields:  (N/Y/R/B): NO// <RET> - No record number (IEN), no
Computed Fields
DISPLAY AUDIT TRAIL? No//  <RET> (No)

NAME: PSJ AC SET-UP                    MENU TEXT: AUto-Discontinue Set-Up
  TYPE: run routine                    CREATOR: POSTMASTER
  PACKAGE: INPATIENT MEDICATIONS       X ACTION PRESENT: YES
  DESCRIPTION:
  This allows the site to determine if patients' Inpatient Medications (IV and
  Unit Dose) orders are d/c'd when the patient is transferred between wards,
  between services, or to authorized absence.  This determination can be made
  on a ward-by-ward and/or service-by-service basis.
  EXIT ACTION: K C,I,I1,DIC,DLAYGO     ROUTINE: ENOAOPT^PSGFILD0
  UPPERCASE MENU TEXT: AUTO-DISCONTINUE SET-UP
```

VII. Data Archiving and Purging

A. Archiving

At present, the Inpatient Medications package does not provide for the archiving of its data.

B. Purging

1. Unit Dose Auto Purging

When the Inpatient Medications installation is run, it sets up the *Unit Dose Clean-Up* option [PSJU BRJ] as a background job that is initially scheduled to run every day at 1:45 a.m. This job should run every night to "clean up" after the Unit Dose Medications module to free up as much disk space as possible, performing the tasks that would slow the package down if performed during the day. The time of day that the job runs can be changed, but this option should be run every day. The option performs the following functions:

- Deletes records in ^PS(53.1) that have been discontinued or have become active.
- Deletes label records that are older than the number of days specified in the site parameters.
- Performs the pick list auto purge, deleting pick lists that have been filed away and are older than the number of days specified by the user.

To have this background job purge filed away pick lists (which can recover considerable disk space), a user needs to enter the number of days that pick lists can last through the *PIck List Auto Purge Set/Reset* [PSJU PLAPS] option. If no entry is made here, or the entry is deleted, the auto-purge of pick lists will not occur.

2. IV Auto Purging

After the Inpatient Medications package is installed, the *Compile IV Costs in Background* [PSJI BACKGROUND] option should be scheduled to run each night. When this job is run, it purges any IV statistics in the IV STATS file (#50.8) which are over 100 days old before compiling the new transactions.

3. Unit Dose Manual Purging

The *PATient Order Purge* [PSJU PO PURGE] option under the *Supervisor's Menu* [PSJU FILE] allows the user to delete orders for patients who have been discharged. Whenever a patient is discharged, a cross-reference is created for each order *for that admission only*. In this way, it is possible to delete all of the orders for a patient's past admissions while not affecting any current orders if the patient is currently admitted. (The cross-reference is deleted when the order is deleted.)

Note: This option requires that there are no outstanding pick lists within 30 days of the date selected to purge. This is to ensure that no data is purged before the pick lists are done with it. Also if the *PATient Order Purge* option is not properly purging orders for the date range specified, it might be necessary to re-cross-reference the AUDDD index on the PHARMACY PATIENT file (#55) UNIT DOSE multiple (#62) subfield, PURGE FLAG (#64). The following example shows re-indexing this field through VA FileMan:

```
>D P^DI
VA FileMan 21.0

Select OPTION:  UTILITY FUNCTIONS
Select UTILITY OPTION:  RE-INDEX FILE

MODIFY WHAT FILE:  PHARMACY PATIENT

THERE ARE 146 INDICES WITHIN THIS FILE
DO YOU WISH TO RE-CROSS-REFERENCE ONE PARTICULAR INDEX? NO// Y  (YES)

Select FIELD:  UNIT DOSE  (multiple)
Select Unit Dose SUB-FIELD:  PURGE FLAG

CURRENT CROSS-REFERENCES:
      1  MUMPS 'AL79' INDEX OF UNIT DOSE SUB-FIELD
         (UNIT DOSE ACTIVITY)
      2  REGULAR 'AUDDD' INDEX OF FILE
         (NEEDED BY UNIT DOSE)
WANT TO RE-CROSS-REFERENCE ONE OF THEM? NO// Y (YES)
WHICH NUMBER:  2
ARE YOU SURE YOU WANT TO DELETE AND RE-CROSS-REFERENCE THE 'AUDDD' INDEX?
NO// Y
...HMM, I'M WORKING AS FAST AS I CAN...
...EXCUSE ME, HOLD ON.....        ...DONE!

Select UTILITY OPTION:  <RET>
```

The *PUrge Pick Lists* [PSJU PLPRG] option allows users to immediately purge pick lists that have been filed away, if deemed necessary for immediate recovery of disk space.

4. IV Manual Purging

The *PUrge Data* (IV) [PSJI PURGE] option allows the deletion of IV orders for a specific patient. It is locked with the PSJI PURGE security key, and is designed to be used only if an order has been entered for the wrong patient. IV orders can only be deleted if no labels have been printed for the order.

The *Purge Expired Orders* (IV) [PSJI PURGE ORDERS] option allows users to purge expired or discontinued orders which have been inactive for at least 30 days. Access to this option is controlled by the PSJI PURGE security key, and holders of this key should be selected carefully. When invoked, the user is required to enter a date at least 30 days in the past.

All IV orders which expired or were discontinued before the date entered will be purged. As such a large number of orders are entered in this package, this option should be run at least once a month to ensure maximum processing speed while using the IV module.

VIII. Inpatient Medications and CPRS

Inpatient Medications is designed for use with the Computerized Patient Record System (CPRS).

A. Installation of the Protocols for CPRS

The protocols used to interface with the CPRS package are automatically installed. (For more information, consult the Pharmacy Data Management (PDM) Installation Guide.) The installation will also add the Inpatient Medications actions on the Patient movements to the PIMS Movement Event protocol (DGPM MOVEMENT EVENTS).

B. Converting

There are four conversions that will run with the install.

1. Order Conversion

For V. 5.0, the Primary Drug is replaced by Orderable Item. Conversions are included with this version that copy data in the old Dosage Ordered fields to the new Dosage Ordered fields, and determines and adds an Orderable Item to each order. Only orders that have a stop date less than 365 days prior to the V. 5.0 installation date will be converted. The installation date used by both methods described below is determined by the DATE INITS LAST RUN field (#20.2) in the PHARMACY SYSTEM file (#59.7). Order Location Codes will be standardized to **V** for the IV subfile of PHARMACY PATIENT file (#55), **U** for the Unit Dose subfile of PHARMACY PATIENT file (#55), and **P** for Orders in NON-VERFIED ORDERS file (#53.1). On orders in the IV subfile of File #55, a new field was added to the ACTIVITY LOG multiple which is a pointer to NEW PERSON file (#200). This field ENTRY BY (#135) is populated by taking the free text data from the ENTRY CODE field (#.23) and determining the corresponding internal entry number (IEN) in File #200. If the determination can't be made a mail message is sent to holders of the PSJI MGR key with these identified. Two methods are used to perform this conversion:

Background

When CPRS V. 1.0 is installed, a process is queued to run in the background and convert existing Inpatient Medications orders. After a patient's orders have been processed, that patient's IEN will be stored in the LAST PATIENT CONVERTED TO 5.0 field (#25.1) of the PHARMACY SYSTEM file (#59.7). This will be used to determine where the process should begin if it must be restarted. When all of the orders for a patient have been processed, the CONVERTED FOR VERSION 5.0? field (#104) of the PHARMACY PATIENT file (#55) is set, showing the conversion has been accomplished for that

patient. When all Inpatient Medications orders within the specified time frame on the system have been converted, the date/time the process completed will be stored in the DATE 5.0 CONVERSION COMPLETED field (#25.2) of the PHARMACY SYSTEM file (#59.7).

Patient Selection
Hooks have been added to convert the data "on the fly" if an order is accessed before the background conversion completes and before the selected patient's data has been converted by the background process. After converting the orders for the selected patient, the CONVERTED FOR VERSION 5.0? field (#104) of the PHARMACY PATIENT file (#55) is set, showing the conversion has been accomplished for that patient.

2. Pick List Conversion

A new field, ORDERABLE ITEM (#.06), is added to the PICK LIST file (#53.5). The Field #.06 of the ORDER multiple (#53.52) is populated as part of this conversion and the cross-references are recompiled so that the pick lists are ready for use with Version 5.0.

3. Order Set Conversion

The dispense drug is used to determine Orderable Item which replaces Primary Drug. Once this conversion occurs the Order Sets are ready for use with Version 5.0. If any order, within an order set, is found that has multiple dispense drugs matched to different Orderable Items the Order Set is not converted. A mail message is sent to all holders of the RPHARM key with these Order Sets identified.

4. Verification Data Conversion

Additional cross-references have been added to identify orders which have not been verified by nursing or pharmacy.

Inpatient Medications protocols will be installed into the PROTOCOL file (#101). These protocols will be used for Inpatient Medication's interactions with Computerized Patient Record System (CPRS), and to trigger the appropriate order action when a patient movement is entered by MAS.

C. Protocol Descriptions

The Inpatient Medications package sends the following protocols for use in V. 5.0. These protocols are automatically installed when the Inpatient Medications installation is run.

The protocols with "PAT" as part of their name assume that the patient has already been selected through CPRS before the protocol is selected. The other protocols will prompt the user for patients.

PSJ LM 14D MAR	14 Day MAR
PSJ LM 24H MAR	24 Hour MAR
PSJ LM 7D MAR	7 Day MAR
PSJ LM AP1	Action Profile #1
PSJ LM AP2	Action Profile #2
PSJ LM BPI HIDDEN ACTIONS	Brief Patient Info Hidden Actions Menu
PSJ LM BRIEF PATIENT INFO MENU	Brief Allergy Display
PSJ LM BYPASS	Bypass
PSJ LM DC	Discontinue
PSJ LM DETAILED ALLERGY	Detailed Allergy/ADR List
PSJ LM DETAILED ALLERGY MENU	ALLERGY/ADR LIST MENU
PSJ LM EDIT ALLERGY/ADR DATA	Enter/Edit Allergy/ADR Data
PSJ LM EDIT NEW	
PSJ LM EXTP	Patient Profile (Extended)
PSJ LM FINISH	Finish
PSJ LM FINISH MENU	
PSJ LM HOLD	Hold
PSJ LM INTERVENTION DELETE	Delete Pharmacy Intervention
PSJ LM INTERVENTION EDIT	Edit Pharmacy Intervention
PSJ LM INTERVENTION NEW ENTRY	Enter Pharmacy Intervention
PSJ LM INTERVENTION PRINTOUT	Print Pharmacy Intervention
PSJ LM INTERVENTION VIEW	View Pharmacy Intervention
PSJ LM IV NEW SELECT ORDER	
PSJ LM IV OE MENU	IV ORDER ENTRY MENU
PSJ LM IV SELECT ORDER	Select Order
PSJ LM LABEL PRINT/REPRINT MENU	Label Print/Reprint
PSJ LM MAR MENU	MAR Menu
PSJ LM MDWS	Medications Due Worksheet
PSJ LM NEW ORDER	New Order Entry
PSJ LM NEW ORDER FROM PROFILE	New Order Entry
PSJ LM NEW SELECT ALLERGY	
PSJ LM NEW SELECT ORDER	
PSJ LM OE MENU	ORDER ENTRY MENU
PSJ LM ORDER VIEW HIDDEN ACTIONS	Order View Hidden Actions Menu
PSJ LM OTHER PHARMACY OPTIONS	Other Pharmacy Options
PSJ LM PAT PR	Inpatient Medications Profile
PSJ LM PATIENT DATA	Patient Record Update
PSJ LM PATIENT INFO	Patient Information
PSJ LM PENDING ACTION	Pending Order Actions
PSJ LM PHARMACY INTERVENTION MENU	Pharmacy Intervention Menu
PSJ LM PNV JUMP	Jump to a Patient
PSJ LM PRINT OUTPATIENT PROFILE	Outpatient Prescriptions
PSJ LM PROFILE HIDDEN ACTIONS	Profile Hidden Actions Menu
PSJ LM PROFILE MENU	Patient Profiles

PSJ LM RETURNS/DESTROYED MENU	Returns/Destroyed Menu
PSJ LM SELECT ORDER	Select Order
PSJ LM SHOW PROFILE	View Profile
PSJ OR MENU	Inpatient Medications Ward Reports
PSJ OR PAT ADT	Inpatient Medications Actions on Patient ADT
PSJ OR PAT MENU	Inpatient Medications Patient Reports
PSJ OR PAT OE	Inpatient Medications
PSJ OR PAT OE MENU	Inpatient Medications
PSJ OR PAT PR	Inpatient Medications Profile
PSJ OR PAT PR MENU	Inpatient Medications Profiles
PSJ OR PR	Inpatient Medications Profile
PSJ PC IV AC/EDIT ACTION	IV ACCEPT EDIT ACTIONS
PSJ PC IV ACCEPT	Accept
PSJ PC IV LOG	Activity Logs
PSJ SELECT ALLERGY	Select Allergy
PSJI LM ACTIVE MENU	IV Active Order Actions
PSJI LM ACTIVITY LOG	View Activity Log
PSJI LM ALIGNMENT	Align Labels (IV)
PSJI LM DISCONTINUE	Discontinue
PSJI LM EDIT	Edit
PSJI LM FINISH	Finish
PSJI LM LABEL LOG	View Label Log
PSJI LM LBLI	Individual Labels (IV)
PSJI LM LBLR	Reprint Scheduled Labels (IV)
PSJI LM LBLS	Scheduled Labels (IV)
PSJI LM LOG MENU	IV Profile Log Menu
PSJI LM PAT PR	IV Medications Profile
PSJI LM PENDING ACTION	IV Pending Order Actions
PSJI LM RETURNS	Returns/Destroyed Entry (IV)
PSJI OR PAT FLUID OE	IV Fluids
PSJI OR PAT FLUID OE MENU	IV FLUIDS...
PSJI OR PAT HYPERAL OE	IV Hyperal
PSJI OR PAT PR	IV Medications Profile
PSJI OR PR	IV Medications Profile
PSJI PC HOLD	Hold
PSJI PC ONCALL	On Call
PSJI PC RENEWAL	Renew
PSJU LM ACCEPT	ACCEPT
PSJU LM ACCEPT EDIT	Edit
PSJU LM ACCEPT EDIT NEW	
PSJU LM ACCEPT MENU	
PSJU LM ACTIONS MENU	
PSJU LM ACTIVITY LOG	Activity Logs
PSJU LM AL	Align Labels (Unit Dose)
PSJU LM COPY	Copy
PSJU LM EDIT	Edit
PSJU LM HIDDEN ACTIONS	UD Hidden Actions
PSJU LM HIDDEN UD ACTIONS	Unit Dose Hidden Actions
PSJU LM LABEL	Label Print/Reprint
PSJU LM MARK INCOMPLETE	Mark Order As Incomplete
PSJU LM MARK NOT GIVE	Mark Order Not To Be Given
PSJU LM PAT PR	Unit Dose Medications Profile
PSJU LM PL	Pick List
PSJU LM PL MENU	Pick List Menu
PSJU LM PLDP	Enter Units Dispensed
PSJU LM PLEUD	Extra Units Dispensed
PSJU LM PLRP	Reprint Pick List
PSJU LM PLUP	Update Pick List

PSJU LM RENEW	Renew
PSJU LM RET	Report Returns (UD)
PSJU LM SPEED DISCONTINUE	Speed Discontinue
PSJU LM SPEED FINISH	Speed Finish
PSJU LM SPEED RENEW	Speed Renew
PSJU LM SPEED VERIFY	Speed Verify
PSJU LM VERIFY	Verify
PSJU OR 14D MAR	14 Day MAR (Unit Dose)
PSJU OR 7D MAR	7 Day MAR (Unit Dose)
PSJU OR AP-1	Action Profile #1
PSJU OR AP-2	Action Profile #2
PSJU OR DS	Authorized Absence/Discharge Summary (Unit Dose)
PSJU OR PAT 14D MAR	14 Day MAR (Unit Dose)
PSJU OR PAT 7D MAR	7 Day MAR (Unit Dose)
PSJU OR PAT AP-1	Action Profile #1 (Unit Dose)
PSJU OR PAT AP-2	Action Profile #2 (Unit Dose)
PSJU OR PAT DS	Discharge Summary (Unit Dose)
PSJU OR PAT PR	Unit Dose Medications Profile
PSJU OR PAT VBW	Non-Verified Orders (Unit Dose)
PSJU OR PR	Patient Profile (Unit Dose)
PSJU OR VBW	Non-Verified Orders (Unit Dose)
PSJU PLATCS	Send Pick List to ATC
VALM DOWN A LINE	Down a Line
VALM FIRST SCREEN	First Screen
VALM GOTO PAGE	Go to Page
VALM HIDDEN ACTIONS	Standard Hidden Actions
VALM LAST SCREEN	Last Screen
VALM LEFT	Shift View to Left
VALM NEXT SCREEN	Next Screen
VALM PREVIOUS SCREEN	Previous Screen
VALM PRINT LIST	Print List
VALM PRINT SCREEN	Print Screen
VALM QUIT	Quit
VALM REFRESH	Re-Display Screen
VALM RIGHT	Shift View to Right
VALM SEARCH LIST	Search List
VALM TURN ON/OFF MENUS	Auto-Display (On/Off)
VALM UP ONE LINE	Up a Line

Example: How to Print the Exported Options Using VA FileMan

```
>D P^DI

VA FileMan 21.0

Select OPTION: INQUIRE TO FILE ENTRIES

OUTPUT FROM WHAT FILE: PROTOCOL// PROTOCOL      (742 entries)
Select PROTOCOL NAME: PSJ LM 14D MAR          14 Day MAR
ANOTHER ONE: <RET>
STANDARD CAPTIONED OUTPUT? Yes// <RET>  (Yes)
Include COMPUTED fields:  (N/Y/R/B): NO// <RET> - No record number (IEN), no
Computed Fields

NAME: PSJ LM 14D MAR                    ITEM TEXT: 14 Day MAR
  TYPE: action                          CREATOR: POSTMASTER
  PACKAGE: INPATIENT MEDICATIONS
 DESCRIPTION:   This allows the user to print a selected patient's medication
 orders on a Medication Administration Record (MAR) for the charting of the
 administration of the orders over a 14 day period. It is designed to replace
 the manual Continuing Medication Record (CMR).  This protocol assumes that a
 patient has already been selected.
  EXIT ACTION: S VALMBCK="R"
  ENTRY ACTION: N VADM,VAIN S PSGMARDF=14 D FULL^VALM1,ENLM^PSGMMAR
  TIMESTAMP: 56693,43648
```

IX. Interfacing withBaxter's ATC 212

This version of Inpatient Medications includes an interface between the Unit Dose Medications module and Baxter Healthcare, Inc.'s ATC 212 Unit Dose Dispensing machine. The Unit Dose Medications module currently allows the users to send their pick lists to the ATC. The interface allows for multiple ATCs, tying the ATCs to ward groups.

Note: If a site elects to send Pick Lists to the ATC machine by ADMIN TIME, the following change must be made to the ATC machine parameter:

At the password screen, enter **F8** for system parameter. Move over to SORT parameter. Your choices will be Time or Medication. Select Medication and press enter.

A. Pharmacy Set Up

In order to send medication orders to the ATC, the Pharmacy must determine the dispense drugs that can be sent to the ATC, and the pharmacy ward groups that will be sending pick lists to the ATC. This can be done before the ATC is set up or even delivered. A full explanation of this part of the set up is provided in the Unit Dose Medications User Manual.

1. Drug Set Up

For each drug that your pharmacy determines can be sent to the ATC, the pharmacy must enter a MNEMONIC, and enter a CANISTER NUMBER for each pharmacy ward group that will be sending the drug to an ATC. This can be through the *Dispense Drug/ATC Set Up* [PSSJU DRUG/ATC SET UP] option. This option is no longer part of the Unit Dose *Supervisor's Menu* [PSJU FILE]. It is sent out with the Pharmacy Data Management software as a stand-alone option. This option must be placed on specific users menu's on an as needed basis.

The pharmacy must also enter each drug into the ATC's software, giving each drug the same mnemonic entered into the Pharmacy Data Management software.

Mnemonics can be assigned through the *Dispense Drug/ATC Set Up* [PSSJU DRUG/ATC SET UP] option. This option is no longer part of the Unit Dose *Supervisor's Menu* [PSJU FILE]. It is sent out with the Pharmacy Data Management software as a stand-alone option. This option must be placed on specific users menu's on an as needed basis.

2. Ward Group Set Up

For each ward group that will be sending to the ATC, the device name given to the ATC must be entered into the WARD GROUP file (#57.5). This can be done through the *Ward Groups* [PSJU EWG]option found within the Unit Dose *Supervisor's Menu* [PSJU FILE].

B. Hardware Set Up

In order for the pharmacy to be able to send Unit Dose Medications orders to the ATC, the ATC must be set up as a device in your system. The ATC should be set up similar to a printer, but must be set up for two-way communication. Some of these corresponding settings must also be made in the ATC setup software. The following examples are provided to guide you in this set up. Please note that they are only examples and may not hold true in all cases.

1. Device File Example

The following is an example of a DEVICE file (#3.5) entry for the ATC. (Your entry for the $I field will more than likely be different.) Only those fields to which data is entered are shown.

```
LOCATION OF TERMINAL: ATC
$I: 142

TYPE: TERMINAL
SUBTYPE: C-OTHER
DEFAULT SUBTYPE: C-OTHER//<RET>
ASK DEVICE: YES//<RET>
ASK PARAMETERS: YES// N    (NO)
MARGIN WIDTH: 80//  255
FORM FEED: #//<RET>
PAGE LENGTH: 66//<RET>
```

2. MUX Table Example

The following is a DSM example of a MUX table entry for the ATC. Please note that OUTPUT ONLY is set to NO.

```
Enter device number, or range of device numbers ( NN:NN). Enter <CR> when done.
      Parity Auto         Modem  Output    Stall   Lower
        |     Baud         Cntrl   only Count        Case
        |      |            |       |       |         |
Device  |CRT  | Rcvr Xmit  |ZUSE   | Login | Tab     |Output    Rtn    Edit
Number  | |   | Spd  Spd   |  |    |   |   |  |      |Margin    num   Comment
-------------------------------------------------------------------------------
142     N Y   N 9600 9600  N  N    N   N    0  Y      Y   255     2 N
142     N Y   N 9600 9600  N  N    N   N    0  Y      Y   255     2 N
```

3. DECServer Examples

The following are examples for setting up the ATC for DECServers:

```
Device          Output Tab   Lowcase  CRT  Login     Output   ZUSE  Comment
                Only   Cntrl  Cntrl       Allowed   Margin
-------------------------------------------------------------------------
PORT_15@DSV1     N      Y       Y        Y    N         255       N   ATC-212


-------------------------------------------------------------------------
SHO POR 15
Port 15:                                  Server:  DSV1

Character size:              8            Input Speed:          9600
Flow Control:              XON            Output Speed:         9600
Parity:                   None            Modem Control:     Disabled

Access:                 Remote            Local Switch:         None
Backward Switch:          None            Name:              PORT_15
Break:                 Disabled           Session Limit:           4
Forward Switch:           None            Type:                HARD

Preferred Service:      None

Authorized Groups:      0
(Current)  Groups:      0

Enabled Characteristics:

Lock,  Loss Notification,  Message,...Verification
-------------------------------------------------------------------------------
```

4. Wiring for CXA16 Card

2----------3
3----------2
7----------7

(Do not connect pin #20)

5. ATC-HPS Configuration Set Up

The following is an example of the ATC software setup:

HPS Configuration Settings

	Current
Baud Rate (9600, 4800, 1200)	: 9600
Parity (S, M, E, O, N)	: O
Data Bits (7, 8)	: 7
Stop Bits (1, 2)	: 1
STX (050)	: 050*
PSOH (052)	: 052*
PETB (053)	: 053*
MSOH (054)	: 054*
METB (055)	: 055*
ETX (051)	**: 013* (most important)**
ACK (048)	: 048*
NACK (049)	: 049*
Lineterm (1=On, 0=Off)	: 0
Drug Mnemonic Length (01, 02..., 15)	: 04*
Drug Mnemonic Mode (1=True, 0=False)	: 0
Response Timer-Control (0, 1, 2..., 9)	: 0†
Response Timer-Data (0, 1, 2..., 9)	: 0†
Wake-up (1=Yes, 0=No)	: 0
Flag Fixed Lngth Records (1=Yes, 0=No)	: 0

* The Unit Dose Medications module expects these settings to be as shown, and might not function properly if they are changed.

† If the ATC is dropping the line, it might be necessary to increase these timers.

6. Common Problems

Occasionally, a site experiences trouble getting the interface to run properly when the site first acquires an ATC, or has trouble later with the interface stopping in the middle of pick lists sends. If this happens, please try one or more of the following:

- Some sites have found that lowering the baud rate from 9600 to 4800, or even 2400, solves their problem.

- Sometimes, there is an error in the ATC HPS CONFIGURATION SETTINGS. If you experience trouble, please double check these settings.

- In some cases, it is only a matter of changing the time of day that pick lists are sent to the ATC to avoid peak loads on the **V***IST***A** computer system.

- In other cases, it has simply been a matter of adjusting the RESPONSE TIMER-CONTROL and/or RESPONSE TIMER-DATA settings within the HPS CONFIGURATION settings.

- If all else fails and the interface still does not want to work, you might consider setting the USE OLD INTERFACE flag in the WARD GROUP file (#57.5) for all ward groups that will be sending pick lists to the ATC. (See the Ward Groups section in the Unit Dose Supervisor's Manual.)

X. Resource Requirements

A. Hardware

The Unit Dose labels and MAR are designed to be printed at 16 or 16.5 pitch (6 lines per inch). You might need to add entries in your DEVICE (#3.5) and TERMINAL TYPE (#3.2) files.

If your site plans to use the labels, an extra printer will be needed in the pharmacy, and at each nursing station that also plans to use the labels.

An extra terminal might also be needed at each nursing station planning to use this package.

An extra printer will be needed in the pharmacy to print IV labels.

B. Disk Space

1. Routines

Since this version is distributed using KIDS (Kernel Installation and Distribution System) the transport global is automatically deleted after the install.

Depending on how the VA FileMan compiles the cross-references, there will be approximately 364 Inpatient Medications routines, taking up approximately 813K of disk space.

2. Data

Each inpatient order uses approximately 600 bytes of disk space.

C. Journaling Globals

The only global used by the Inpatient Medications package that is recommended for journaling is the ^PS global.

D. Translating Globals

In previous versions of Inpatient Medications, it was recommended that if your site was translating PS*, that the PSG global be placed above the PS* in the translation table, and that PSG be translated back to itself. This was suggested because the PSG global was subscripted by $J and translating it would produce errors.

Version 5.0 no longer uses the PSG global, and entries in the translation table referring to it can be deleted.

E. Nightly Background Jobs

The IV Medications and Unit Dose Medications modules each have a background job that is scheduled to run every night. These background jobs are needed to compile statistics and to perform general clean up of no longer needed data. Both of these background jobs are options.

For IV Medications, the option is PSJI BACKGROUND JOB (*Compile IV Costs in Background*).

For Unit Dose Medications, the option is PSJU BRJ (*Unit Dose Clean-Up*).

F. Queuing and Printing across CPUs

All reports and labels can be queued and can be printed across CPUs. When the labels are first created, they are automatically queued, unless the terminal or a slave printer is selected as the user's label device.

XI. External Relationships

A. Packages Needed to Run Inpatient Medications

The Inpatient Medications package requires on the following external packages to run effectively:

PACKAGE	MINIMUM VERSION NEEDED
Kernel	8.0
VA FileMan	21.0
MailMan	7.1
PIMS	5.3
CPRS	1.0
Outpatient Pharmacy	7.0
Pharmacy Data Management	1.0
Dietetics	5.0

B. Unit Dose Medications and Ward Stock

The Inpatient Medications package also has a tie to the Automatic Replenishment/ Ward Stock (AR/WS) package so that if you are running the AR/WS package, the Inpatient Medications package will know which items in your DRUG file (#50) are ward stock items for each ward. The tie is a cross-reference under the PHARMACY AOU STOCK file (#58.1).

C. Calls Made by Inpatient Medications

The following external calls are supported via inter-package agreements:

ROUTINE	ENTRY POINTS USED
ECXUD1	^ECXUD1
ECXPIV1	ECXPIV1
GMRVUTL	EN6
GMRADPT	EN1
GMRAOR	$$ORCHK
GMRAOR2	EN1
GMRAPEM0	EN2
OR3CONV	OTF
ORCONV3	PSJQOS
ORERR	EN
ORUTL	READ
ORX1	NA
ORX2	LK,ULK
PSAPSI5	EN
PSSHLSCH	EN
SDROUT2	DIS
VADPT	IN5, INP, PID, SDA

D. Introduction to Integration Agreements and Entry Points

The following integration agreements and entry points are provided for the associated packages, only those packages listed can use these integration agreements and entry points. If you have any questions, please contact the Birmingham CIO Field Office.

117 NAME: **DBIA117**
CUSTODIAL PACKAGE: INPATIENT MEDICATI Birmingham
SUBSCRIBING PACKAGE: ICR - IMMUNOLOGY C San Francisco
SPINAL CORD DYSFUN
San Francisco
FILE: 55 ROOT: PS(55,

172 NAME: **DBIA172-A**
CUSTODIAL PACKAGE: INPATIENT MEDICATI Birmingham
SUBSCRIBING PACKAGE: EVENT CAPTURE Birmingham
ROUTINE: PSGPLF

206 NAME: **DBIA206**
CUSTODIAL PACKAGE: INPATIENT MEDICATI Birmingham
SUBSCRIBING PACKAGE: SURGERY Birmingham

296 NAME: **DBIA296**
CUSTODIAL PACKAGE: INPATIENT MEDICATI Birmingham
SUBSCRIBING PACKAGE: OUTPATIENT PHARMAC Birmingham
FILE: 50.8 ROOT: PS(50.8,

435 NAME: **DBIA435**
CUSTODIAL PACKAGE: INPATIENT MEDICATI Birmingham
SUBSCRIBING PACKAGE: D&PPM Birmingham
FILE: 50.8 ROOT: PS(50.8,

438 NAME: **DBIA438**
CUSTODIAL PACKAGE: INPATIENT MEDICATI Birmingham
SUBSCRIBING PACKAGE: D&PPM Birmingham
FILE: 57.6 ROOT: PS(57.6,

472 NAME: **DBIA472**
CUSTODIAL PACKAGE: INPATIENT MEDICATI Birmingham
SUBSCRIBING PACKAGE: D&PPM Birmingham
FILE: 50.8 ROOT: PS(50.8,

475 NAME: **DBIA475**
CUSTODIAL PACKAGE: INPATIENT MEDICATI Birmingham
SUBSCRIBING PACKAGE: D&PPM Birmingham
FILE: 57.6 ROOT: PS(57.6

486 NAME: **PSJEEU0**
CUSTODIAL PACKAGE: INPATIENT MEDICATI Birmingham
SUBSCRIBING PACKAGE: HEALTH SUMMARY Salt Lake City
ADVERSE REACTION T Chicago
ROUTINE: PSJEEU0

634 NAME: **DBIA172-B**
CUSTODIAL PACKAGE: INPATIENT MEDICATI Birmingham
SUBSCRIBING PACKAGE: EVENT CAPTURE Birmingham

```
            ROUTINE: PSGAMSA


       771     NAME: DBIA271-C
  CUSTODIAL PACKAGE: INPATIENT MEDICATI          Birmingham
SUBSCRIBING PACKAGE: DRUG ACCOUNTABILIT          Birmingham
               FILE: 50.8                  ROOT: PS(50.8,


       772     NAME: DBIA271-D
  CUSTODIAL PACKAGE: INPATIENT MEDICATI          Birmingham
SUBSCRIBING PACKAGE: DRUG ACCOUNTABILIT          Birmingham
               FILE: 57.6                  ROOT: PS(57.6,


       900     NAME: PSIVACT
  CUSTODIAL PACKAGE: INPATIENT MEDICATI          Birmingham
SUBSCRIBING PACKAGE: SURGERY                     Birmingham
            ROUTINE: PSIVACT


       902     NAME: PSJSV0
  CUSTODIAL PACKAGE: INPATIENT MEDICATI          Birmingham
SUBSCRIBING PACKAGE:
            ROUTINE: PSJSV0


      1038     NAME: DBIA1038-A
  CUSTODIAL PACKAGE: INPATIENT MEDICATI          Birmingham
SUBSCRIBING PACKAGE: CONTROLLED SUBSTAN          Birmingham
               FILE: 59.4                  ROOT: PS(59.4,


      1043     NAME: DBIA1038-B
  CUSTODIAL PACKAGE: INPATIENT MEDICATI          Birmingham
SUBSCRIBING PACKAGE: CONTROLLED SUBSTAN          Birmingham
               FILE: 59.4                  ROOT: PS(59.4,


      1095     NAME: DBIA1095
  CUSTODIAL PACKAGE: INPATIENT MEDICATI          Birmingham
SUBSCRIBING PACKAGE: CONTROLLED SUBSTAN          Birmingham


      1428     NAME: IV SOLUTIONS
  CUSTODIAL PACKAGE: INPATIENT MEDICATI          Birmingham
SUBSCRIBING PACKAGE: INTAKE/OUTPUT               Chicago
               FILE: 52.7                  ROOT: PS(52.7,


      1429     NAME: PHARMACY PATIENT
  CUSTODIAL PACKAGE: INPATIENT MEDICATI          Birmingham
SUBSCRIBING PACKAGE: INTAKE/OUTPUT               Chicago
               FILE: 55                    ROOT: PS(55,


1879     NAME: DBIX1879
  CUSTODIAL PACKAGE: INPATIENT MEDICATI          Birmingham
SUBSCRIBING PACKAGE: DSS EXTRACTS                Birmingham
```

```
               FILE: 50.8                    ROOT: PS(50.8


1882     NAME: DBIA1882
  CUSTODIAL PACKAGE: INPATIENT MEDICATI           Birmingham
SUBSCRIBING PACKAGE: DSS EXTRACTS                 Birmingham
               ROUTINE: PSIVSTAT

1884     NAME: DBIA1884
  CUSTODIAL PACKAGE: INPATIENT MEDICATI           Birmingham
SUBSCRIBING PACKAGE: DSS EXTRACTS                 Birmingham
               FILE: 59.5                    ROOT: PS(59.5
```

How to Print DBIA Information from FORUM

```
Select FORUM Primary Menu Option: DBA

Select DBA Option: INTEGRATIon Agreements Menu

Select Integration Agreements Menu Option: INQUIRe
Select INTEGRATION REFERENCES: DBIA296  296  INPATIENT MEDICATIONS   DBIA296
PS(50.8,
DEVICE:    [Select Print Device]
.....printout follows .....

INTEGRATION REFERENCE INQUIRY #296             OCT  1,1996  10:24    PAGE 1
-------------------------------------------------------------------------------

       296     NAME: DBIA296
  CUSTODIAL PACKAGE: INPATIENT MEDICATI           Birmingham
SUBSCRIBING PACKAGE: OUTPATIENT PHARMAC           Birmingham
              USAGE: Private            APPROVED: APPROVED
             STATUS: Active              EXPIRES:
           DURATION: Till Otherwise Agr  VERSION:
               FILE: 50.8                   ROOT: PS(50.8,
        DESCRIPTION:                        TYPE: File
   Outpatient Pharmacy 6.0v will be printing a management report.  In order
   to complete the report, we need to read ^PS(50.8 (IV STATS FILE).  We are
   reporting the outpatient ward's number of dispensed units, average cost of
   the dispensed units, and the total costs of the dispensed units.

   To obtain this data, we need to read the 0 node in subfile 50.804, the
   Average Drug Cost Per Unit field (#4) on the 0 node piece 5 in subfile
   50.805, the Dispensed Units (Ward) field (#2) on the 0 node piece 2 in the
   subfile 50.808, and the B cross-reference in subfile 50.808.

   GLOBAL MAP DATA DICTIONARY #50.8 -- IV STATS FILE STORED IN ^PS(50.8,
           SITE: BIRMINGHAM ISC
   ------------------------------------------------------------------------
   ^PS(50.8 D0,2,D1,1,0)=^50.804P^^ (#1) WARD ^PS(50.8,D0,2,D1,2,D2,0)=^^^^
   (#4) AVERAGE DRUG COST PER UNIT [5N] ^PS(50.8,D0,2,D1,2,D2,3,D3,0)=^ (#2)
   DISPENSED UNITS (WARD) [2N] ^
```

E. The Generic Schedule Processor

The Inpatient Medications package provides a set of utilities that can be used to create, validate, and process schedules. To Inpatient Medications, a schedule is a set of intervals over which an action is to take place. These utilities are available for use by any package willing to use them as described.

Starting with Version 3.2, the Inpatient Medications package contains a set of utilities that might be of assistance to other packages in the scheduling of tasks or actions that need to take place or be performed. These utilities allow users to define schedules, and use those schedules to determine the number of times (and when) an action needs to take place over a defined range of dates. These utilities are available for use by any package willing to use them as described.

After installing the Inpatient Medications package, you will need to have an entry in the PACKAGE file (#9.4) to use the Processor. The Generic Schedule Processor uses the package prefix so that each package views and edits only its own schedules. The Processor can be used by class III software merely by creating an entry in the PACKAGE file (#9.4) that has a package prefix (e.g., ZZMP, ZZX).

Please refer any questions, comments, and/or requests to the Birmingham CIO Field Office.

1. Files

The Processor uses two files for which the users input data:

ADMINISTRATION SCHEDULE (#51.1)
ADMINISTRATION SHIFT (#51.15).

The ADMINISTRATION SCHEDULE file (#51.1) contains the following information:

NAME:
A common abbreviation for a schedule, such as Q8H for every eight hours or QOD for every other day.

The name can also be days of the week, separated by dashes. You do not have to use the complete name of each day, but must use at least the first two letters, (e.g., MO-WE-FR).

TYPE OF SCHEDULE:
A schedule can be categorized into six types. The processor handles each type differently. The types are described as the following:

1. CONTINUOUS. An action is to take place on a regular basis, such as three times a day or once every two days.

2. DAY OF THE WEEK. The action is to take place only on specific days of the week. A day-of-the-week schedule with admin times is processed differently than one without admin times (see PSJC under Input and Output Variables). Whenever day of the week is selected as the type of schedule, a check will be done on the schedule name to make sure it is in the form of MO-WE-FR.

3. DAY OF THE WEEK-RANGE. The action is to take place only on specific days of the week, but at no specific time of day. A day of the week-range schedule is the similar to the day of the week schedule, except that it is processed like a range schedule once the days have been determined. A day of the week range schedule has no admin times. Whenever day of the week-range is selected as the type of schedule, a check will be done on the schedule name to make sure it is in the form of MO-WE-FR.

4. ONE-TIME. The action will take place only once at a specific date/time.

5. RANGE. An action will take place only once, but at anytime within a given date range.

6. SHIFT. This is a continuous schedule in which the action will not take place at an exact time of day (nor even an exact day), but within a range of times.

STANDARD ADMINISTRATION TIMES:
Standard time(s) of the day that an action should take place. This is for continuous and day of the week schedules. The times should be in military time (24 hour clock), two or four characters, separated by dashes if more than one, such as 06-14-22 or 1400. (Leading zeros for times less than 10 are required.) All times must be the same length, either 2 or 4 digits.

FREQUENCY (IN MINUTES):
The number of minutes between each time that an action is to take place. It is used for non-standard and multiple day continuous schedules, such as Q5H (every 5 hours) or QOD (every other day). This is very important for schedules (standard or non-standard) that encompass multiple days. (The scheduler will attempt to provide a default value for users when they enter/edit this field).

STANDARD SHIFTS:
The shift (or shifts) during which an action is to take place. Used for schedules designated as shift schedules. Each shift is an abbreviation for a range of times (e.g., M for morning - 06-12). Separate shifts, if more than one, by dashes, such as M-E. To be available for use, shifts must first be defined in the ADMINISTRATION SHIFT file (#51.15).

MAX DAYS FOR ORDERS:
The maximum number of days (1-999) continuous orders will last for this administration schedule. (This data is not used by Pharmacy software.)

HOSPITAL LOCATION (multiple):
An area of the hospital that might need to use a set of administration times or shifts that are different than the standard ones. The Processor allows users to define the location and then times or shifts for each location. After selecting a hospital location, you can then enter/edit either a set of locations specific admin times or shifts, depending on the type of the schedule.

The ADMINISTRATION SHIFT file (#51.15) contains the following information:

NAME:
An arbitrary name for a shift, such as Morning.

ABBREVIATION:
A one character code for the shift, such as M for Morning. The abbreviation is used by the STANDARD SHIFTS field of the ADMINISTRATION SCHEDULE file (#51.1).

STANDARD START/STOP TIMES:
Two times of the day that designate the range over which the action is to take place. The two times (military) must both be either two or four characters, and separated by a dash, such as 06-12 or 0600-1200.

HOSPITAL LOCATION (multiple):
An area of the hospital that might need to use a set of start/stop times that are different than the standard ones. The Processor allows users to define the location and then times for each location. After selecting a hospital location, you can then enter/edit a set of location specific start/stop times.

2. Input and Output Variables

The following variables are used as input and/or output variables:

PSJAT - Either set of admin times or shifts, depending on the type of schedule. If it is admin times, it will be similar to: PSJAT="04-08-12-16-20". If it is shifts, it will be similar to: PSJAT="M-E" PSJAT("M")="05-11" PSJAT("E")="18-22".

PSJAX - Maximum number of days for continuous orders; returned as null if not found.

PSJC - The number of times the action is to take place within the given window, and an array of the date/times the action is to occur.

For continuous, day of the week, and one-time schedules, PSJC will be similar to the following: PSJC=2, PSJC(2891001.09)="", PSJC(2891001.12)="". If a day of the week schedule is used without admin times, the start time of the order is used as the admin time.

For day of the week-range, shift, and range schedules, the array will be similar to PSJC(start date/time)=stop date/time (e.g., PSJC(2891001.18)=2891001.24). If the type of schedule is range, and PSJM=0, PSJC will not be greater than 1.

PSJC will be -1 if the processor found problems, such as incomplete or invalid input.

PSJFD Stop date/time of a window for processing orders.

PSJM The frequency (in minutes) that an action is to take place. Used for continuous and range schedules.

PSJNE No Echo. If found to exist (set to anything), the processor should not produce any dialogue with the user.

PSJOFD Stop date/time of the order (action to take place). If PSJOFD is not found, PSJFD is used.

PSJOSD Start date/time of the order. If PSJOSD is not found, PSJSD is used.

PSJPP Package prefix, as found in the PACKAGE file (#9.4). Needed by most entry points.

PSJSCH Schedule, used for processing.

PSJSHLS Executable code that sets $T, to be used to screen Hospital Locations when editing schedules and shifts. If PSJSHLS exists, DIC("S") is set to PSJHLS. the scheduler will not try to validate PSJSHLS.

PSJHLS. The scheduler will not try to validate PSJSHLS.

PSJSD Start date/time of a window for processing orders.

PSJTS A code representing the type of schedule. The codes are: C - continuous; D - day of the week; DR - day of the week-range; O - one-time; R - range; and S - shift.

PSJW Pointer to the HOSPITAL LOCATION file (#44). Not required. If PSJW does exist, and the schedule selected has a special set of times (or shifts) for PSJW, the special times are returned instead of the standard ones. The processor always tries to validate PSJW, and if found to be invalid, PSJW is killed.

PSJX Schedule, used for validating. Will be killed (along with X) if invalid.

PSJY Pointer to the ADMINISTRATION SCHEDULE file (#51.1). Returned by ENSV^PSJEEU as a pointer value if an entry is found in the file; returned as null if not.

X Input variable used when validating Administration Times or Shifts. Will be killed if invalid.

Note: Except for PSJW, PSJX, and X, none of the other input variables are killed. PSJW, PSJX, and X are only killed if found to be invalid.

3. Entry Points

ENSE^PSJEEU - Allows the user to edit the ADMINISTRATION SCHEDULE file (#51.1).
Needs: PSJPP
Optional: PSJSHLS

ENSHE^PSJEEU - Allows the user to edit the ADMINISTRATION SHIFT file (#51.15).
Needs: PSJPP
Optional: PSJSHLS

ENSVI^PSJEEU - For an inquiry option. Allows users to view the information (admin times, minutes, or shifts) pertaining to standard schedules. Nothing more.
Needs: PSJPP

ENSV^PSJEEU - Validates a schedule and gives the admin times (or shifts) and minutes for the schedule. For use in an input transform.
Needs: PSJPP

PSJX - The schedule need not be complete. For example, if PSJX="Q", the user will be asked to select from all the schedules in the file starting with "Q", if any.

Optional: PSJW - pointer to File #44, for admin times or shifts by location.
PSJNE - if defined, there is no dialogue with the user.

Returns : PSJX - as complete schedule name - killed if invalid.
PSJAT - admin times or shifts, if any - will be null if PSGX is invalid.
PSJM - frequency in minutes - will be null if PSGX invalid.
PSJTS - code representing type of schedule - will be null if PSGX invalid.
PSJY - pointer to the ADMINISTRATION SCHEDULE file (#51.1) if PSJX is found in the file - will be null if PSJX is invalid or not found in the file (a non-standard schedule).
PSJAX - Maximum days continuous orders last for this schedule; will be null if not found.

ENATV^PSJEEU - Validates administration times. For use in an input transform.
Needs: X
Returns: X - if valid.
Kills: X - if invalid

ENSHV^PSJEEU - Validates shifts. For use in an input transform.
Needs: X
Returns: X - if valid.
Kills: X - if invalid

ENSPU^PSJEEU - Calculates the number of times (and when) an action is to take place.
Needs: PSJSCH - the schedule, not required if schedule type is shift or range.
PSJAT
PSJM
PSJTS
PSJSD
PSJFD
Optional: PSJOSD - start date/time of order
PSJOFD - stop date/time of order
(If PSJOSD or PSJOFD are not found, they are set to PSJSD or PSJFD, respectively.)
Returns: PSJC

ENSVH^PSJSV0 - Help text for use when validating a schedule. For use in the executable help of a field.
Needs: X set to one or more "?", supplied by VA FileMan if used as executable help.

ENDSD^PSJEEU - Provides a date/time that might be used as a default value for the start date of an order. If PSJTS is "O" (for one-time) or PSJSCH is a one-time or on call schedule, or PSJAT is null, the start date returned will be the nearest hour, forward or backward. Otherwise, the start date returned will be the nearest time in PSJAT.
Needs: PSJSCH
PSJAT
PSJTS
Returns: PSJX - Will either be a date/time in VA FileMan internal format, or null if unable to calculate the start date/time.

XII. Internal Relationships

All of the Inpatient Medications package options have been designed to stand-alone.

XIII. Internal Calls and Variables

The following is a description of the major Inpatient Medications routines and subroutines. These routines and subroutines are not callable from outside of the package.

^PSGAL5	Places entries into the orders' activity logs. Called when any action is taken upon a verified order, either through the package or through the VA FileMan.
ENDEV^PSGTI	Used by most of the cost reports to select a print device.
ENDTS^PSGAMS	Used by most of the cost reports to select a range of dates over which the report is to run.
^PSGCT	Adds or subtracts minutes from a date.
^PSGFILED	Used at various entry points to edit the files used by the Inpatient Medications package.
ENDPT^PSGP	All individual patients are selected here. Will not allow the selection of patients who have never been admitted. Will allow the selection of patients not currently admitted only to print a profile or to enter returned meds. Also, checks to see if the patient selected has been transferred, discharged, etc.
^PSGNE3	Calculates default values for an order's start and stop dates during the order entry process. Sometimes called at ENFD to calculate a new stop date.
^PSGO	Prints the Unit Dose Medications orders for a patient.
EN^PSGOE1	Allows the user to take various action on an order (edit, cancel, etc.). First determines the actions that are allowed for the order, depending on the status of the order (active, non-verified, etc.) and the type of user (pharmacist, nurse, or ward clerk).

ENUNM^PSGOU	Goes through a patient's orders, updating the status of the orders that have expired.
^PSGPLG	Used to select pick lists that have already been run, for reprinting, updating, etc.
^PSGPL0	Calculates the number of units needed of a medication over a given date range.
^PSGSEL	Handles the "WARD GROUP (G), WARD (W), OR PATIENT (P)" prompt and the associated help text.
^PSGSET	Sets the variables necessary to run the Unit Dose Medications module. Also sets the variables into the ^XUTL("OR","PSG") global for use by the various Unit Dose options, to allow the option to be independent.
ENCV^PSGSETU	Used by the Unit Dose Medications options to set the package variables. If the ^XUTL("OR","PSG") global is found, this global is used to set the variables. If it is not found, the routine ^PSGSET is called.
ENIVKV^PSGSETU ENKV^PSGSETU	These are used by the IV Medications and Unit Dose Medications module (respectively) to kill the package-wide variables when exiting options.
^PSGTI	The Unit Dose interface to TaskMan, using ^%ZTLOAD.
EN2^PSGVW	Prints the expanded view of an order. Calls ^PSGVW0 to print the activity log, if the order has one.
^PSIV	Used for patient selection, editing of administration schedules, and selection of IV orders from the IV profile.
^PSIVACT	Called each time an IV order is addressed to update the order's status and ward location.
^PSIVCAL	Calculates the default start and stop times for an order during IV order entry.
^PSIVCHK	Called after an IV order has been entered or edited to ensure the order is in the correct format for that IV type.
^PSIVHLP*	These routines contain help text to be displayed to the user during interactive sessions. When a PSIVHLP* routine is

	invoked, the variable "HELP" is set to the name of a line label which begins the appropriate help text.
^PSIVLABL	Prints IV labels (except hyperals) to the IV label device.
^PSIVHYPL	Prints IV hyperal labels to the IV label device.
^PSIVOPT	Called each time the order entry option is invoked. When an order is chosen from the profile, this routine prompts the user or actions available on the order. When an action is chosen, the order is checked to be sure the action is allowed and to make sure another user is not currently editing the order. The orders activity log is also updated by this routine after an action has been taken on the order.
^PSIVSTAT	Creates "transaction nodes" in the IV STATS file (#50.8) each time an IV label is printed, or a "return/destroyed" item is entered. This routine is also called (at different entry points) by the PSJI BACKGROUND JOB (*Compile IV Costs in Background*) and PSJI COMPILE STATS (*COmpile IV Statistics (IV)*) options to compile these transactions into the file.
^PSIVVW	Displays an IV order to the screen when one is selected for "viewing" through the order entry or patient profile options.
^PSIVXU	When the IV module is entered, this routine calls ^PSIVSET, which prompts the user for the IV site parameters to be used during that session. ^PSIVXU stores these variables in the ^XUTL global, so they can be reused during that session without prompting the user each time they are needed.
^PSJAC	Checks to see if the patient has been transferred, discharged, re-admitted, or has died, and takes the appropriate action, depending on the site parameters.
^PSJO	Prints Inpatient (IV and Unit Dose) Medications orders for a patient.

A. Package-Wide Variables

The following is a list of the more important namespaced variables used by the Inpatient Medications package. These variables are listed here for support purposes only and can change from version to version.

1. Inpatient Sign-on Variables

The following Inpatient Medications system variables are set whenever a user enters any of the Inpatient Medications options. These variables are needed to use many of the options. The variables are killed when the user exits each option.

PSJSYSU
Used by the Inpatient Medications package in defining the characteristics of the user – what the user can or cannot do with regards to the package.

1st piece = **3** if the user is seen as a pharmacist,
1 if the user is seen as a nurse,
otherwise, **0** or NULL

2nd piece = **1** if the user is seen as a valid provider, able to write medication orders,
otherwise, NULL

3rd piece = **3** if the user is seen as a pharmacist,
2 if the user is a pharmacy technician,
1 if the user is a nurse,
0 (or NULL), in which case the user is ward staff

4th piece = **1** if the user can select from dispense drugs when prompted for a drug during Inpatient/Unit Dose order entry, otherwise,
0, in which case the user must select a primary drug during order entry

PSJSYSP
Internal entry number of the user's entry in the INPATIENT USER PARAMETERS file (#53.45), defined using the user logged on to the system.

PSJSYSP0
The user's record (zero node) from the INPATIENT USER PARAMETERS file (#53.45). This is another set of user characteristics that define what the user can and cannot do with regards to the Inpatient Medications package. Some of these parameters can be set by the user through the *Edit Inpatient User Parameters* option. Other parameters can only be set by the Inpatient Supervisor. A list of these characteristics can be obtained by printing the data dictionary for the INPATIENT USER PARAMETERS file (#53.45).

PSJSYSL
Defines how the package should act in regards to Unit Dose labels when the user takes actions on Unit Dose orders.

1st piece = **0** if labels are not to be created
1 if the first label is to be created when the order is entered or completed, but not on verification
2 if the label is to be created when the order is entered and when the order is verified
3 if the first label is not to be created until the order is verified

If the setting for the first piece is 1 or 2, labels will be created when a non-verified Unit Dose order is edited. If the setting of the 1st piece is greater than 0, a label will be created on all actions taken on the order after it is verified. If the setting for the 1st piece is 0, the 2nd and 3rd pieces will be NULL.

2nd piece = device name (**ION**) to which labels are to be printed - can be NULL, in which case labels will be created but not printed
3rd piece = device (**IO**) to which labels are to be printed - will be NULL if 2nd piece is NULL

PSJSYSL
Is defined when the user first enters an option, but is redefined each time a patient is selected to reflect the settings in the INPATIENT WARD PARAMETERS file (#53.45) for the ward on which the patient currently resides.

PSGDT
This is the current date and time in VA FileMan internal format. This is reset as needed by the package.

^XUTL("OR",$J,"PSG",0)
^XUTL("OR",$J,"PSG",1)

Used to store the above variables, except for PSGDT. These global variables are not killed until the user completely exits **V***IST***A**. If these variables are found, they are used to set PSJSYSU, PSJSYSP, and PSJSYSP0. If the ^XUTL variables are not found, PSJSYSU, PSJSYSP, and PSJSYSP0 are calculated and the ^XUTL variables are set accordingly.

```
^XUTL("OR",$J,"PSG",0)=PSJSYSU_"^"_PSJSYSP
^XUTL("OR",$J,"PSG",1)=PSJSYSP0
```

2. Standard Variables Used Throughout the Package.

The following variables are set whenever a patient is selected.

PSJSYSW
Internal entry number of an entry in the INPATIENT WARD PARAMETERS file (#53.45), defined by the ward on which the selected patient is found to reside, or by the ward on which the patient was last found to reside if the patient is not currently admitted to the medical center.

PSJSYSW0
The record (zero node) from the INPATIENT WARD PARAMETERS file (#53.45), as determined by PSJSYSW. This is another set of characteristics that define what the user can and cannot do with regards to the Inpatient Medications package, determined by the ward on which the selected patient is found to reside, or last found to reside. These parameters are set by an Inpatient Supervisor or ADPAC. A list of these characteristics can be obtained by printing the data dictionary for the INPATIENT WARD PARAMETERS file (#53.45).

PSJSYSL
Defines how the package should act in regards to Unit Dose labels when the user takes actions on Unit Dose orders.

1st piece = **0** if labels are not to be created
1 if the first label is to be created when the order is entered or completed, but not on verification
2 if the label is to be created when the order is entered and when the order is verified
3 if the first label is not to be created until the order is verified

If the setting for the first piece is 1 or 2, labels will be created when a non-verified Unit Dose order is edited. If the setting of the 1st piece is greater than 0, a label will be created on all actions taken on the order after it is verified. If the setting for the 1st piece is 0, the 2nd and 3rd pieces will be NULL.

2nd piece = device name (**ION)** to which labels are to be printed - can be NULL, in which case labels will be created but not printed
3rd piece = device (**IO**) to which labels are to be printed - will be NULL if 2nd piece is NULL

PSJSYSL
Is defined when the user first enters an option, but is redefined each time a patient is selected to reflect the settings in the INPATIENT WARD PARAMETERS file (#53.45) for the ward on which the patient currently resides.

PSGP
The internal entry number of the selected patient - the pointer to the PATIENT file (#2).

PSGP(0)
The zero node of the entry in the PATIENT file (#2) of the selected patient.

PSJPAD
The date of the selected patient's current or last admission, in the form of *internal^external.*

PSJPBID
The short form of the selected patient's identifier, as provided by the PIMS package.

PSJPDD
The date of the selected patient's last discharge, in the form of *internal^external.* Will be null if the patient is currently admitted.

PSJPDOB
The date of the selected patient's birth, in the form of *internal^external.*

PSJPDX
The short diagnosis of the selected patient's current or last admission.

PSJPHT
The selected patient's height, in centimeters.

PSJPRB
The selected patient's current or last room-bed.

PSJPSEX
The selected patient's sex, in the form of *internal^external.*

PSJPSSN
The selected patient's social security number.

PSJPPID
The selected patient's identifier, as provided by the PIMS package.

PSJPTD
The date of the last transfer of the current or last admission for the selected patient, in the form of *internal^external*.

PSJPTS
The selected patient's current or last treating specialty.

PSJPTSP
The selected patient's current or last treating specialty provider.

PSJPWD
The selected patient's current or last ward. This is a pointer to the WARD LOCATION file (#42).

PSJPWDN
The name of the selected patient's current or last ward.

PSJPWT
The selected patient's weight, in kilograms.

3. IV Sign-on Variables

These variables are set whenever a user selects an IV or Inpatient Medications option.

PSIVPL
The default label device set either from the IV room site parameters, or through the *Change Report/Label Devices (IV)* option.

PSIVPR
The default report device set either from the IV room site parameters, or through the *Change Report/Label Devices (IV)* option.

PSIVSITE
Contains the site parameters for the IV room chosen upon entry to the package. It is the one node concatenated with the five node of the entry chosen in the IV ROOM file (#59.5).

PSIVSN
The pointer value to the IV ROOM file (#59.5) of entry chosen upon entry to the IV module.

4. Variables

PSGORD
Contains the internal entry number of the Unit Dose order currently being worked on, concatenated with a set of codes that "tell" the package where to look for the order. If PSGORD contains a **V**, the order is an IV order, and the appropriate IV utility is called. If PSGORD contains an **N**, the package will look for the order at ^PS(53.1,+PSGORD. If not, the package will look for the order at ^PS(55,PSGP,5,+PSGORD,.

PSGSS
Returned by the routine PSGSEL in response to the "WARD GROUP (G), WARD (W), OR PATIENT (P)" prompt. Its value will be **G**, **W**, **P**, ^, or null.

ON
The internal entry number of the IV order in the PHARMACY PATIENT file (#55).

HELP
When one of the IV help routines is invoked (PSIVHLP*), this variable is set to the line label identifying the help text to be displayed.

P(n)
Where *n* is a number from 1 to 23. This local array is set to each piece of data stored on the zero node for an IV order (^PS(55,PSGP,"IV",ON,0)), so that a disk access is not necessary each time this information is needed.

PSIVNOL
The number of IV labels being printed, returned, destroyed, recycled, or canceled.

Other namespaced variables usually follow certain conventions. For example, most namespaced variables are namespaced by routine (e.g., PSGPL for pick list variables, PSGAL for activity log variables). Most variables ending in "WD" contain the internal entry number of a ward in the WARD LOCATION file (#42), while those ending in "WDN" usually contain the name of the ward. Variables ending in "WG" will usually contain the internal entry number of a ward group from the WARD GROUP file (#57.5), while those ending in "WGN" will usually contain the name of the ward group. Variables ending in "SD" will usually be the start date for a range of dates over which a report or process is run. Those ending in "FD" will usually be the stop date for the same range of dates.

XIV. On-line Documentation

A. On-line Help

Throughout the entire Inpatient Medications package, you will always be able to enter a question mark (?) to obtain on-line information to assist you in your choice of actions at any prompt.

B. Printing Data Dictionaries

The Data Dictionaries (DDs) are considered part of the on-line documentation for this software application. You can, and should, print the DDs as soon as the software has been installed and initialized. The following are the files for which you should print DDs:

50.2 IV CATEGORY
50.8 IV STATS
51.15 ADMINISTRATION SHIFT
53.1 NON-VERIFIED ORDERS
53.2 UNIT DOSE ORDER SET
53.3 ACTIVITY LOG REASON
53.4 PRE-EXCHANGE NEEDS
53.41 MAR LABELS
53.42 INPATIENT BACKGROUND JOB
53.43 MISCELLANEOUS REPORT FILE
53.44 PHYSICIANS' ORDERS
53.45 INPATIENT USER PARAMETERS
53.5 PICK LIST
53.55 UNIT DOSE/ATC MEDS
57.5 WARD GROUP
57.6 UNIT DOSE PICK LIST STATS
57.7 MEDICATION ADMINISTERING TEAM
59.5 IV ROOM
59.6 INPATIENT WARD PARAMETERS

Use VA FileMan option #8 [DATA DICTIONARY UTILITIES] to print the DDs.

Example: How to Print DDs Using VA FileMan

```
VA FileMan  21.0

Select OPTION:  8     DATA DICTIONARY UTILITIES
Select DATA DICTIONARY UTILITY OPTION: LIST FILE ATTRIBUTES
START WITH WHAT FILE: INPATIENT USER PARAMETERS// <RET>
     GO TO WHAT FILE: INPATIENT USER PARAMETERS // <RET>
Select SUB-FILE:   <RET>
Select LISTING FORMAT:  STANDARD//  BRIEF
ALPHABETICALLY BY LABEL?  NO//  Y  (YES)
DEVICE:  [Enter Print Device Here]                    RIGHT MARGIN: 80// <RET>
```

The DD will now print on the user-specified device.

XV. Additional Information

A. SAC Exemptions

The Unit Dose Medications module has been granted a permanent SAC exemption to use asterisk (*) reads in its interface with the Baxter Healthcare Inc. ATC 212 Unit Dose dispensing machine.

The IV Medications module has been granted a permanent SAC exemption from VA FileMan compatibility for the WARD LIST cross-reference, MANUFACTURING LIST cross-reference, and the SUSPENSE LIST.

B. IV Ward List

This report lists all of the IV orders needed for the date and IV types specified. The Ward List must be run before scheduled labels can be printed for IV orders. The labels are printed in the order of the ward list, and only counted as usage the first time they are printed.

The data for the ward list is stored in a non-VA FileMan compatible cross-reference in the PHARMACY PATIENT file (#55). Because of this, ward lists should not be manipulated using VA FileMan. The basic structure of this cross-reference is as follows:

```
^PS(55,"PSIVWL",S1,S2,S3,S4,S5)=P1^P2^P3^P4
```

where:

S1 = The internal entry number of IV Room for which the order is associated.
S2 = The name of the ward where the patient is located.
S3 = The first letter of the IV type, concatenated with the start date/time of the coverage period this entry is associated with. For example, if the ward list was run on 2/22/91 for admixtures which had a period of coverage from 0859 to 0858, S3 would look like "A2910222.0859."
S4 = The internal entry number of the patient for whom the order exists.
S5 = The internal entry number of the order.
P1 = The number of labels needed for this period of coverage.
P2 = The start date concatenated with the administration times for the order.
P3 = The cumulative number of labels that have been printed for the order.
P4 = When scheduled labels have been run, this piece is set to "1." This is used to prevent labels from being counted again in the IV STATS file (#50.8) if scheduled labels are printed more than once.

C. IV Manufacturing List

The IV Manufacturing List produces a report by additive or solution of all orders due to be mixed for the specified date and IV types. The total number of admixtures, piggybacks, hyperals, chemotherapies, and syringes containing each additive is shown, as well as how many belong to each patient. As the manufacturing list is compiled from the ward list cross-reference, the manufacturing list must be run after the ward list.

The data for the manufacturing list is stored in a non-VA FileMan compatible cross-reference in the PHARMACY PATIENT file (#55). Because of this, manufacturing lists should not be manipulated using VA FileMan. The basic structure of this cross-reference is as follows:

The top node for each drug listed on the manufacturing list:

^PS(55,"PSIVWLM",S1,S2,S3,S4,0)=P1

where:

S1 = The internal entry number of IV Room for which this order is associated.

S2 = The first letter of the IV type, concatenated with the start date/time of the coverage period for which this entry is associated. For example, if the manufacturing list was run on 2/22/91 for admixtures which had a period of coverage from 0859 to 0858, S2 would look like "A2910222.0859."

S3 = The first letter of the IV type.

S4 = If the order includes an additive, the first piece of S4 contains the first 10 characters of the additive print name, the second piece contains the additive strength, and the third piece contains "6", concatenated with the internal entry number of the additive in the IV ADDITIVES file (#52.6). If the order does not include an additive, piece one contains the first 10 characters of the solution print name, piece two contains the solution volume, and piece three contains "7" concatenated with the solution's internal entry number in the IV SOLUTIONS file (#52.7).

P1 = The total number of each type order containing the drug identified in S4.

Each record on the manufacturing list should be in the following format:

^PS(55,"PSIVWLM",S1,S2,S3,S4,S5,S6,S7,S8)=P1^P2

where:

S1 = The internal entry number of IV Room for which this order is associated.

S2 = The first letter of the IV type, concatenated with the start date/time of the coverage period for which this entry is associated. For example, if the

manufacturing list was run on 2/22/91 for admixtures which had a period of coverage from 0859 to 0858, S2 would look like "A2910222.0859."

S3 = The first letter of the IV type.

S4 = If the order includes an additive, the first piece of S4 contains the first 10 characters of the additive print name, the second piece contains the additive strength, and the third piece contains "6"; concatenated with the internal number of the additive in the IV ADDITIVES file (#52.6). If the order does not include an additive, piece one contains the first 10 characters of the solution print name, piece two contains the solution volume, and piece three contains "7"; concatenated with the solution's internal number in the IV SOLUTIONS file (#52.7).

S5 = If the order contains an additive, piece one contains the first 10 characters of the first solution's print name, piece two contains the solution's volume, and piece three contains "7"; concatenated with the solution's internal entry number in the IV SOLUTIONS file (#52.7). If no additive was found for the order, S4 contains "zz6" only.

S6 = The internal entry number of the patient for whom the order exists.

S7 = The internal entry number of the order.

P1 = The number of labels needed for this order and period of coverage.

P2 = The name of the ward where the patient is located at the time the list is run.

D. IV Suspense List

When labels for an order are suspended, an entry is made in the "PSIVSUS" cross-reference of the PHARMACY PATIENT file (#55). Because this cross-reference is non-VA FileMan compatible, suspense data should not be manipulated using VA FileMan. The basic structure of this cross-reference is as follows:

```
^PS(55,"PSIVSUS",S1,S2,S3,S4)=P1^P2^P3
```

where:

S1 = The internal entry number of IV Room associated with this order.

S2 = The internal entry number of the patient for whom the order exists.

S3 = The internal entry number of the order.

S4 = The date and time the order was suspended.

P1 = The number of labels suspended for the order.

P2 = The start date concatenated with the administration times for the order.

P3 = The cumulative number of labels that have been printed for the order (does not include those labels suspended and not printed).

When the *Labels from Suspense (IV)* option is used (PSJI SUSLBLS), the routine first deletes any orders that labels have been printed for and are more than 1 day

old. The new labels are then printed, a new entry is added to the cross-reference and set to the same values as the old entry, and the old entry is then deleted. This new node shows that labels for this suspended order have already been printed, and is used by the *Reprint Label from Suspense (IV)* option (PSJI SUSREP) when reprinting batches of labels. The structure of the new node is as follows:

^PS(55,"PSIVSUS",S1,S2,S3,S4,S5)=P1^P2^P3

where:

S1 = The internal entry number of IV Room associated with this order.
S2 = "A" concatenated with the date and time labels for the order were printed.
S3 = The internal entry number of the patient for whom the order exists.
S4 = The internal entry number of the order.
S5 = The date and time the order was suspended.

P1 = The number of labels suspended for the order.
P2 = The start date concatenated with the administration times for the order.
P3 = The cumulative number of labels that have been printed for the order (does not include those labels suspended and not printed).

The *Manufacturing Record for Suspense (IV)* option [PSJI SUSMAN], creates a temporary cross-reference in the PHARMACY PATIENT file (#55) to hold the data needed for this report. This is done so that the same routines which build and print the Manufacturing List described above can be used for this report also. It only exists during the running of this option. The structure of the cross-reference is as follows:

^PS(55,"PSIVSUSM",S1,S2,S3,S4,0)=P1

where:

S1 = The internal entry number of IV Room associated with this order.
S2 = The job number ($J).
S3 = The first letter of the IV type.

S4 = If the order includes an additive, the first piece of S4 contains the first 10 characters of the additive print name, the second piece contains the additive strength, and the third piece contains "6"; concatenated with the internal number of the additive in the IV ADDITIVES file (#52.6). If the order does not include an additive, piece one contains the first 10 characters of the solution print name, piece two contains the solution volume, and piece three contains "7"; concatenated with the solution's internal entry number in the IV SOLUTIONS file (#52.7).

P1 = The total number of each type order containing the drug identified in S4.

Each record on the Suspense Manufacturing List should be in the following format:

^PS(55,"PSIVWLM",S1,S2,S3,S4,S5,S6,S7)=P1

where:

S1 = The internal entry number of IV Room associated with this order.
S2 = The job number ($J).
S3 = The first letter of the IV type.
S4 = If the order includes an additive, the first piece of S4 contains the first 10 characters of the additive print name, the second piece contains the additive strength, and the third piece contains "6"; concatenated with the internal entry number of the additive in the IV ADDITIVES file (#52.6). If the order does not include an additive, piece one contains the first 10 characters of the solution print name, piece two contains the solution volume, and piece three contains "7"; concatenated with the solution's internal entry number in the IV SOLUTIONS file (#52.7).
S5 = If the order contains an additive, piece one contains the first 10 characters of the first solution's print name, piece two contains the solution's volume, and piece three contains "7"; concatenated with the solution's internal entry number in the IV SOLUTIONS file (#52.7). If no additive was found for the order, S4 contains "zz6" only.
S6 = The internal entry number of the patient for whom the order exists.
S7 = The internal entry number of the order.

P1 = The number of labels suspended for this order.

E. Unit Dose "Defaults"

1. Order Start Date/Time Calculation

When an order is created, the package will calculate a start date and time for the order. If the order is entered through a Unit Dose Order Set, the calculated start date/time is automatically entered into the order and may be edited later. If the regular, abbreviated, or ward order entry process is used, the calculated start date/time is shown as a default value during the order entry process and may be edited immediately.

When calculating the start date/time value, the package uses the DEFAULT START DATE CALCULATION parameter. This parameter is set using the *Inpatient Ward Parameters Edit* [PSJ IWP EDIT] option under the *PARameters Edit Menu* [PSJ PARAM EDIT MENU] option under the *Supervisor's Menu* [PSJU FILE] . The choices for the DEFAULT START DATE CALCULATION are as follows:

1. NOW-If this choice is selected, the start date/time will be the login time of the order.

2. CLOSEST ADMIN TIME-If this is selected, the admin date/time which is closest to the login date/time of the order will be used as the default.

3. NEXT CLOSEST ADMIN TIME-If this choice is made, the admin date/time which is closest, but coming after the login date/time of the order, will be used as the default.

ORDER RENEWAL

When an order is renewed and the DEFAULT START DATE CALCULATION is set to next or closest admin time, the default start date/time for the order is calculated based on the last time the medication was administered. If the parameter is set to now, the time of the order renewal will be used as the default start date/time.

2. Stop Date/Time: Calculation

When an order is created, the package will calculate a stop date and time for the order. If the order is entered through the abbreviated or ward order entry process, or through an Order Set, the calculated stop date/time is automatically entered into the order, and can be edited later. If the regular order entry process is used, the calculated stop date/time is shown as a default value during the order entry process, and can be edited immediately.

When calculating the default stop date/time, the package uses the following criteria (in the order shown):

1. If the patient has a default stop date/time associated with him/her, and this date/time is not less than the current date/time, the order's default stop date/time will be set to the patient's default stop date/time.

2. If the order is a renewal and the start date/time of the order is within three days of the patient's current default stop date/time, the order's default stop date/time will be set to null.

3. If the order has a schedule type of one-time, the order's default stop date/time is set to the order's start date/time.

4. If the primary drug of the order contains a day or dose limit and the start date/time of the order plus the day or dose limit is less than the order's current default stop date/time, the order's default stop date/time will equal the order start date/time plus the day or dose limit.

5. If the default stop date/time has not been determined by the previous methods, the order's default stop date/time will be calculated using the DAYS UNTIL STOP DATE/TIME and TIME OF DAY THAT ORDERS STOP parameters. These parameters may be edited under the *Inpatient Ward Parameters Edit* [PSJ IWP EDIT] option under the *PARameters Edit Menu* [PSJ PARAM EDIT MENU] option under the *Supervisor's Menu* [PSJU FILE]. If a number is found for the DAYS UNTIL STOP DATE/TIME, the stop date of the order will be set to the start date of the order plus this number. If no number is found, the stop date of the order will be set to the start date of the order plus fourteen days. The default stop time will be set to the military time found in the TIME OF DAY THAT ORDERS STOP field. If no time is found in this field, the stop time will be set to the order's start time.

3. Patient's Default Stop Date/Time

When creating and renewing orders, the package shows a default stop date/time for the order. The default depends largely on the patient's default stop date/time (sometimes referred to as the patient's "wall").

A wall will exist for a patient if the SAME STOP DATE ON ALL ORDERS parameter is set to yes. This parameter may be edited with the *Inpatient Ward Parameters Edit* [PSJ IWP EDIT] option under the *PARameters Edit Menu* [PSJ PARAM EDIT MENU] option under the *Supervisor's Menu* [PSJU FILE].

The wall for the patient is calculated based on the DAYS UNTIL STOP DATE/TIME and the TIME OF DAY THAT ORDERS STOP parameters. These parameters may be updated under the *PARameters Edit Menu* [PSJ PARAM EDIT MENU]option under the *Supervisor's Menu* [PSJU FILE]. If a number is found for the DAYS UNTIL STOP DATE/TIME, the date of the wall will be set to the start date of the order being created plus this number. If no number is found, the date of the wall will be set to the start date of the order plus fourteen days. If a time is found in the TIME OF DAY THAT ORDERS STOP field, the time of the wall will be set to that time. If no time is found, the time for the wall will be set to the order's start time.

The following tells when the wall is updated:

1. If the patient has no active orders, the wall is set to null.

2. If the order is a new order and the patient's current wall is less than the current date/time, a new wall is assigned.

3. If the order is a renewal and the order's start date plus three is greater than the current wall, a new wall is assigned.

4. If the order is created due to an edit, the wall remains the same.

Note: The wall may be edited by a pharmacist or pharmacy technician using the *Edit Patient's Default Stop Date* [PSJU CPDD] option.

4. Pick List Wall

When a pick list is created (run), the START DATE selected is in effect a wall for the pick list. As long as the actual date (and time) is less that the start date, the pick list can be updated. Also, until the start date is reached, the pick list cannot be filed away. Conversely, once the start date is reached, the pick list can be filed away, but can no longer be updated.

You can now enter units dispensed before the start date is reached to allow greater accuracy of the units needed when you send a pick list the Baxter ATC 212 dispensing machine.

Note: If you enter the units dispensed for a pick list before the start date is reached and then update the pick list, the units dispensed data could be lost for any order that is updated.

Glossary

Action Prompt

There are two types of "Action" prompts that occur during order entry. One type of requesting action on the order is the standard ListMan action prompt. The choices are listed in the footer of the ListMan screen. The following actions are valid

PU	**Patient Record Updates**
DA	**Detailed Allergy/ADR List**
VP	**View Profile**
NO	**New Orders Entry**
IN	**Intervention Menu**
PI	**Patient Information**
SO	**Select Order**
DC	**Discontinue**
ED	**Edit**
VF	**Verify**
HD	**Hold**
RN	**Renew**
AL	**Activity Logs**
OC	**On Call**
+	**Next Screen**
-	**Previous Screen**
UP	**Up a Line**
DN	**Down a Line**
>	**Shift View to Right**
<	**Shift View to Left**
FS	**First screen**
LS	**Last Screen**
GO	**Go to Page**
RD	**Re Display Screen**
PS	**Print Screen**
PL	**Print List**
SL	**Search List**

Q	**Quit**
ADPL	**Auto Display (on/off)**
MAR	**MAR Menu**
LBL	**Label Patient/Report**
OTH	**Other Pharmacy Options**
JP	**Jump to a Patient**
CO	**Copy**

The second type of "Action" prompt, requesting action on labels, is "Action ( )", where the valid codes are again shown in the parentheses. The following codes are valid:

P	Print specified number of labels now.
B	Bypass any more action.
S	Suspend a specified number of labels for the IV room to print on demand.

Active Order

Any order which has not expired or been discontinued. Active orders also include any orders that are on hold or on call.

Activity Reason Log

The complete list of all activity related to a patient order. The log contains the action taken, the date of the action, and the user who took the action.

Activity Ruler

The activity ruler provides a visual representation of the relationship between manufacturing times, doses due, and order start times. The intent is to provide the "on-the-floor" user with a means of tracking activity in the IV room and determining when to call for doses before the normal delivery. The activity ruler is enabled or disabled under the *SIte Parameters (IV)* option.

Additive

A drug that is added to an IV solution for the purpose of parenteral administration. An additive can be an electrolyte, a vitamin or other nutrient, or an antibiotic, but only electrolyte - or multivitamin-type additives can be entered as IV fluid additives in CPRS.

Administration Schedule File

File #51.1. This file contains administration schedule names and standard dosage administration times. The name is a common abbreviation for an administration schedule type (e.g., QID, Q4H, PRN). The administration time is entered in military time, with each time separated from the next by a dash, and times listed in ascending order.

Administering Teams

Nursing teams used in the administration of medication to the patients. There can be a number of teams assigned to take care of one ward, with specific rooms and beds assigned to each team.

Admixture

An admixture is composed of any number of additives (including zero) in one solution. It is given at a specified flow rate; when one bottle or bag is empty, another is hung.

Average Unit Drug Cost

The total drug cost divided by the total number of units of measurement.

Chemotherapy

Chemotherapy is the treatment or prevention of cancer with chemical agents. The chemotherapy IV type can be administered as a syringe, admixture, or a piggyback. Once the subtype (syringe, piggyback, etc.) is selected, the order entry follows the same procedure as the type that corresponds to the selected subtype (e.g., piggyback type of chemotherapy follows the same entry procedure as regular piggyback IV).

Chemotherapy "Admixture"

The Chemotherapy "Admixture" IV type follows the same order entry procedure as the regular admixture IV type. This type is used when the level of toxicity of the chemotherapy drug is high and is to be administered continuously over a long period of time (e.g., seven days).

Chemotherapy"Piggyback"

The Chemotherapy "Piggyback" IV type follows the same order entry procedure as the regular piggyback IV type. This type of chemotherapy is used when the chemotherapy drug does not have time constraints on how fast it must be infused into the patient. These types are normally administered over a 30 - 60 minute interval.

Chemotherapy "Syringe"

The Chemotherapy "Syringe" IV type follows the same order entry procedure as the regular syringe IV type. Its administration may be continuous or intermittent. This type is selected by the pharmacist when the level of toxicity of the chemotherapy drug is low and needs to be infused directly into the patient within a short time interval (usually 1-2 minutes).

Continuous Syringe

A syringe type of IV that is administered continuously to the patient, similar to a hyperal IV type. This type of syringe is commonly used on outpatients and administered automatically by an electrical device.

Coverage Times

The start and end of coverage period designates administration times covered by a manufacturing run. There must be a coverage period for all IV types: admixtures and primaries, piggybacks, hyperals, syringes, and chemotherapy. For one type, admixtures for example, you might define two coverage periods; one from 1200 to 0259 and another from 0300 to 1159 (this would mean that you have two manufacturing times for admixtures).

CPRS

A **V***IST***A** computer software package called Computerized Patient Record Systems. CPRS is an application in **V***IST***A** that allows the user to enter all necessary orders for a patient in different packages from a single application. All non-verified orders that appear in the IV module are initially entered through the CPRS package.

Cumulative Doses — The number of IV orders actually administered, which equals the total number of bags dispensed less any recycled, destroyed, or canceled bags.

Default Answer — The most common answer, predefined by the computer to save time and keystrokes for the user. The default answer appears before the two slash marks (//) and can be selected by the user by pressing the Return key.

Dispense Drug — The Dispense Drug name has the strength attached to it (e.g., Acetaminophen 325 mg). The name alone without a strength attached is the Orderable Item name.

Delivery Times — The time(s) when IV orders are delivered to the wards.

Dosage Ordered — After you have selected the drug during order entry, the dosage ordered field is asked next. You should only answer this field if the actual dosage or strength ordered is different from the available drug choices.

Drug Electrolytes File — File #50.4. This file contains the names of anions/cations, and their concentration units.

Electrolyte — An additive that disassociates into ions (charged particles) when placed in solution.

Entry Code — The name of the user who entered the IV order into the computer.

Hospital Supplied Self Med — Self med which is to be supplied by the Medical Center's pharmacy. Hospital supplied self med is only prompted for if the user answers Yes to the SELF MED prompt during order entry.

Hyperalimentation (Hyperal) — Long term feeding of a protein-carbohydrate solution. Electrolytes, fats, trace elements and vitamins can be added. Since this solution generally provides all necessary nutrients, it is commonly referred to as Total Parenteral Nutrition (TPN). A hyperal is composed of many

	additives in two or more solutions. When the labels print, they show the individual electrolytes in the hyperal order.
Infusion Rate	The designated rate of flow of IV fluids into the patient.
Integrity Checker	The portion of the IV module that validates that the user has answered all necessary fields to complete an order.
Intermittent Syringe	A syringe type of IV that is administered periodically to the patient according to an administration schedule.
Internal Order Number	The number on the top left corner of the label of an IV bag in brackets ([ ]). This number can be used to speed up the entry of returns and destroyed IV bags.
IV Additives File	File #52.6. This file contains drugs which are used as additives in the IV room. Data entered includes drug generic name, print name, drug information, synonym(s), dispensing units, cost per unit, days for IV order, usual IV schedule, administration times, electrolytes, and quick code information.
IV Category File	File #50.2. This file allows the user to create categories of drugs in order to run "tailor-made" IV cost reports for specific user-defined categories of drugs. The user can group drugs into categories.
IV Room Name	The name identifying an IV distribution area.
IV Solutions File	File #52.7. This file contains drugs which are used as primary solutions in the IV room. The solution must already exist in the DRUG file (#50) to be selected. Data in this file includes: drug generic name, print name, status, drug information, synonym(s), volume, and electrolytes.

Label Device
The device, identified by the user, on which computer-generated labels will be printed.

LVP
Large Volume Parenteral – Admixture. A solution intended for continuous parenteral infusion, administered as a vehicle for additive(s) or for the pharmacological effect of the solution itself. Composed of any number of additives, including zero, in one solution. An LVP runs continuously, with another bag hung when one bottle or bag is empty.

Manufacturing Times
The time(s) that designate(s) the general time when the manufacturing list will be run and IV orders prepared. This field in the *Site Parameters (IV)* option (IV ROOM file, #59.5) is for documentation only and does not affect IV processing.

Medication Administering Team File
The Medication Administering Team file (#57.7) contains wards, the teams used in the administration of medication to that ward, and the rooms/beds assigned to that team.

Medication Instruction File
The Medication Instruction File (#51.2) is used by Unit Dose and Outpatient Pharmacy. It contains the medication instruction name, expansion and intended use.

Medication Routes File
File #51.2. contains medication route names. You can enter an abbreviation for each route to be used at your site. The abbreviation will most likely be the Latin abbreviation for the term.

Medication Routes/ Abbreviations
Route by which medication is administered (e.g., oral). The MEDICATION ROUTES file (#51.2) contains 51 pre-supplied routes. Abbreviations are selected by each VAMC. The abbreviation cannot be longer than five characters to fit on labels and the MAR. You can add new routes and abbreviations as appropriate.

Non-Formulary Drugs — Drugs that are not available for the use of all physicians.

Non-Verified Orders — Any order that has been entered in the Unit Dose module that has not been verified (made active) by a nurse and/or pharmacist. Ward staff may not verify a non-verified order.

Orderable Item — An Orderable Item name has no strength attached to it (e.g., Acetaminophen). The name with a strength attached to it is the Dispense drug name (e.g., Acetaminophen 325mg).

Order Sets — An Order Set is a set of N pre-written orders. N orders indicate that the number of orders in an Order Set is variable. Order Sets are used to expedite order entry for drugs that are dispensed to all patients in certain medical practices and procedures.

Order View — Computer option that allows the user to view detailed information related to one specific IV order of a patient. The order view provides basic patient information and identification of the order variables such as the additives, solutions, strength, bottles, start/stop dates, provider, IV type and room, entry code, last fill, schedule, administration times, infusion rate, other information and remarks, and number of cumulative doses.

Parenteral — Introduced by means other than by way of the digestive track.

Patient Profile — A listing of a patient's active and non-active IV orders. The patient profile also includes basic patient information, including the patient's name, social security number, date of birth, diagnosis, ward location, date of admission, reactions, and any pertinent remarks.

Pending Order — A pending order is one that has been entered by a clinician through CPRS without Pharmacy completing the order. Once Pharmacy has completed the order, it will become active.

Piggyback — Small volume parenteral solution for intermittent infusion. A piggyback is composed of any number of additives, including zero, and one solution; the mixture is made in a small bag. The piggyback is given on a schedule (e.g., Q6H). Once the medication flows in, the piggyback is removed; another is not hung until the administration schedule calls for it.

Pre-Exchange Units — The number of actual units required for an order until the next cart exchange.

Primary Solution — A solution, usually an LVP, administered as a vehicle for additive(s) or for the pharmacological effect of the solution itself. Infusion is generally continuous. An LVP or piggyback has only one solution (primary solution). A hyperal can have one or more solutions.

Print Name — Drug generic name as it is to appear on pertinent IV output, such as labels and reports. Volume is not part of the print name.

Print Name{2} — Field used to record the additives contained in a commercially purchased premixed solution.

Prompt — A point at which the computer questions the user and waits for a response.

Provider — Another term for the physician involved in the prescription of an IV or Unit Dose order for a patient.

PSJI MGR — The primary menu option that must be assigned to pharmacists, supervisors, and IV pharmacy application coordinators. Also, the key that must be assigned to the application coordinator, enabling him or her to access the *SUPervisor's Menu*.

PSJI PURGE — The key that must be assigned to individuals allowed to purge expired IV orders. This person will most likely be the IV application coordinator.

PSJI USR1 — The primary menu option that must be assigned to nurses.

PSJI USR2 — The primary menu option that must be assigned to technicians.

PSJ PHARM TECH — The key that identifies the user as a pharmacy technician.

PSJ RNURSE — The key that identifies the user as a nurse.

PSJ RPHARM — The key that identifies the user as a pharmacist.

Quick Code — An abbreviated form of the drug generic name (from one to ten characters). One of the three drug fields on which lookup is done to locate a drug. Print name and synonym are the other two. Use of quick codes will speed up order entry, etc.

Report Device — The device, identified by the user, on which computer-generated reports selected by the user will be printed.

Schedule (SCH) — The frequency of administration of a medication (e.g., QID, QD, QAM, STAT, Q4H).

Schedule Type — **Continuous**: An action is to take place on a regular basis, such as three times a day or once every two days. **Day of the Week**: The action is to take place only on specific days of the week. **Day of the week-range**: The action is to take place only on specific days of the week, but at no specific time of day. **One-time**: The action will take place only once at a specific date/time. **Range**: An action will take place only once, but at anytime within a given date range. **Shift:** This is a continuous schedule in which the action will not take place at an exact time of day (nor even an exact day), but within a range of times.

Schedule Type (ST)
Codes include: **O** - one time (i.e., STAT - only once), **P** - PRN (as needed; no set administration times). **C**- continuous (given continuously for the life of the order; usually with set administration times). **R** - fill on request (used for items that are not automatically put in the cart - but are filled on the nurse's request. These can be multidose items (e.g., eye wash, kept for use by one patient and is filled on request when the supply is exhausted). And **OC** - on call (one time with no specific time to be given, i.e., 1/2 hour before surgery).

Self Med
Medication which is to be administered by the patient to himself.

Standard Schedule
Standard medication administration schedules stored in the ADMINISTRATION SCHEDULE file (#51.1).

Status (STAT)
A - active, **E** - expired, **R** - renewed (or reinstated), **D** - discontinued, **H** - on hold, **I** - incomplete, or **N** - non-verified.

Stop Date/Time
The date and time that orders stop.

Stop Order Notices
A list of patient medications which are about to expire and may require action.

Syringe
Type of IV that uses a syringe rather than a bottle or bag. The method of infusion for a syringe-type IV may be continuous or intermittent.

Syringe Size
The syringe size is the capacity or volume of a particular syringe. The size of a syringe is usually measured in number of cubic centimeters (ccs).

TPN
Total Parenteral Nutrition. The intravenous administration of the total nutrient requirements of the patient. The term TPN is also used to mean the solution compounded to provide those requirements.

Units per Dose
The number of Units (tablets, capsules, etc.) to be dispensed as a Dose for an order. Fractional numbers will be accepted.

VA Drug Class Code
A drug classification system used by VA that separates drugs into different categories based upon their characteristics. IV cost reports can be run for VA Drug Class Codes.

Ward Group File
The WARD GROUP file (#57.7) contains the name of the ward group, and the wards included in that group. The grouping is necessary for the pick list to be run for specific carts and ward groups.

Ward Group Name
An arbitrarily chosen name used to group wards for the pick list and medication cart.